1 3

$\langle \Sigma \rangle$

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... (4).

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
										LOG BOOK 71	
				DAVID		DUNLAP			OBSERVATORY		
					74"	LOG	BOOK				
					VOL- 71						
					PLATE	NO:	8774	—	CEO	5282	
					· July 1992	—		Oct	1992	— c	

(3) Wed-Thurs #1

Date ..July.15/16.-92... Observers ..Hdg./F.Fbr.[redacted].....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
8774	Focus (Comp)									
8775	Focus (Stel)									
8776	Bias (4)									
8777	Comp							Fehr clear	60s	
8778	Flat							Tung A=½	10	
8779	Bias (4)			21 56 36						
8780	HO155937	17 09 30	16 29 00	22 04 26					600	957
8781	——"——			22 14 35						811
8782	——"——			22 24 54						830
8783	——"——			22 35 12						760
8784	——"——			22 45 31						850
8785	——"——			22 55 49						760
8786	Bias (4)									
8787	Flat							Tung A=½	10s	
8788	Comp							Fehr Clear	90s	

Spectr. Temp. ..... Dome Temp./Hum. 19.6°C/68.7% Transparency Conditions ..... CLEAR ..... (6)

Focus ..... 6.62 ..... (2030)

Spectr. Temp. ..... Dome Temp./Hum. .....

[redacted] 90 Cgain FANS OFF.

Comparison Filter	Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						CASS CCD	G=6020 1800 ~~700~~ μ	200μ	λ=6563Å	5ci	4.3	480 250 1024 41	4.3 SHELF
										6ci	3.25	SHELF IN BACKGROUND SIGNAL SEEN	3.25 SHELF
						* DUE TO SET-UP PROBLEMS, NO NORMALIZATION OR SEEING TEST DONE.						START UP - PROBLEMS	
	60s									4ci	0.5	SHELF GONE NO, SADH	
	10									8ci			
	600	957	1"	V 8.29 8.77	F8					5ci 7ci	Hdy PAM	Dome T = 18.8°C Hum = 68.8%	5.0 SHELF
		811											
		830											
		760											
		850											
		760	2"							9ci			3.0 SHELF
	10s												
	90s												

(7) #2

Date ..July. 15/16.-92. Observers ..Hdy./Fbr./Bbr.m.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
cc8789	HD155937	17 09 30	+ 16 29	23 17 05					60s	680
8790	—"—			23 28 03					60s	560
8791	—"—			23 38 21					60s	645
8792	—"—			23 48 40					60s	600
8793	—"—			23 58 59					60s	545
8794	—"—			00 09 17					60s	545
8795	Bias (4)									
8796	Comp							FeAr Clear	90s	
8797	FLAT							Tung A=1/2	10s	
8798	HD155937			00 26 23					60s	400
8799	—"—			00 36 42					60s	517
8800	—"—			00 47 00					60s	524
8801	—"—			00 57 18					60s	533
8802	—"—			01 07 38					60s	565
8803	—"—			01 17 57	01 27 57				60s	516

Spectr. Temp. ..... Dome Temp./Hum. 17.4°C / 74.1% Transparency Conditions ..... CLEAR ..... (8)

Focus ..... 6.62 ..... (2313)

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS OFF

Comparison Filter	Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
660		680		V 29 8.77	F8	CASS CCD	α=6020 1800	200 μ	6563Å	10c;	Hdy Pgm	386 crashed during obs but data obtained safely	2.5 SHELF
600		560	2"										
600		645										DOME T=16.8°C HUM = 74%	
600		600											
600		545											
600	5	545								11c;			1.8 SHELF
90s													
10s												15695 ADUMAX	
600	3	400								5c;		DOME IN WAY AT END AND PROBABLY THROUGHOUT NOT	
600	5	517											
600	5	524											
600	5	533											
600	5	565											
600	5	516											

(9) #3

Date . July 15/16-92. Observers ... Hdy/F.Ots.....

Emulsion Batches:
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.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
8804	FLAT							Tung A=1/2	8sec	
8805	COMP							FeAr Clear	90sec	
8806	BIAS(4)									
8807	HD155937	17 09 30	+6 29	01 34 50					600s	516
8808	—"—			01 45 09					600s	530
8809	—"—			01 55 28					600s	445
8810	—"—			02 05 47					600s	508
8811	—"—			02 16 05					600s	470
8812	—"—			02 26 23						450
8813	BIAS(4)									
8814	COMP							FeAr Clear	90s	
8815	FLAT							Tung A=1/2	8sec	
8816	HD155937	17 09 30	+6 29	02 45 16					600s	406
8817	—"—			02 55 35					600s	375
8818	—"—			03 05 54					600s	360

Spectr. Temp. ..... Dome Temp./Hum. 16.7°C/73.2% Transparency Conditions ..... CLEAR ..... (10)

Focus ..... 6.62 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS OFF

Comparison filter/ Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
8 sec											~~12364~~ 12364 Max	
9 sec											SHELF WEAK STILL PRESENT	
600s	516		8.29 8.77	F8	CASS CCD	1800 α=6020	200 μ	λ=6563Å		Hdy Pgm	HEADER NAME IS BIAS(4) - INCORRECT	
600s	530											
600s	445											
600s	508											
600s	470											
	450											
90s											SHELF GONE PROBABLY	
5sec											11,295 Max.)	
600s	406											
600s	375										AIRMASS = 1.5820	
600s	360											

(11) #4

Emulsion Batches: .....

Date ...July. 15/16..-97... Observers ..Hdy.(24")/Fbr..... .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
8819	HD155937	17 09 30	+16 29	031613		0532W			60s
8820	Bias (4)								
8821	Flat							Tung. 0.1/2	8s
8822	Comp (HD155937)							Fe/Ar Clear	90s
8823	Comp (HD177724)								
8824	HD177724	19 00 49	13 43 00	034521					
8825	HD177724	19 00 49	13 43 00	034831					
[illegible]									
[illegible]									
[illegible]									
8826	Comp							Fe Ar Clear	10s
8827	Flat							Tung 0.1/2	8s
8828	Flat							"	8s
8829	Flat							"	8s
8830	Bias (4)								

Spectr. Temp. ..... Dome Temp./Hum. 16.6°c / 73.2% Transparency Conditions ..... CLEAR ..... (12)
(0245)

Focus ..... 6.6.2 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

FANS OFF

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
280	2"-3"	V= 8.29 8.72	F8	CASS CCD	1800 G-6020	200 μ	λ_0 = 6563Å		Hdy	Dew T = 16.6°C Humidity = 72.4%	
										10,782.	
20K									Telluric Std		
20K									Telluric Std		
										11,544	
										11,365	
										11,260	
				ALL TO PERSEUS & WORM.							

(13)

Date July 16/17 1992 Observers Hdy/Tn/Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
8831	BIAS(1) SM								
8832	BIAS(4)			22 23 06					
8833	BIAS(1)			22 24 18					
8834	DARK			22 25 03	22 26 03				60sec
8835	DARK			22 29 25	22 30 25				60sec
8836	DARK			22 33 03	22 34 03				60sec
8837	DARK			22 35 07	22 45 07				600sec
8838	DARK			22 46 01	22 56 01				600sec
8839	BIAS(4)			22 58 30					
8840	DARK			22 59 04	23 09 04				600sec
8841	DARK			23 11 47	23 12 47				60sec
8842	DARK			23 14 19	23 24 19				600sec
8843	DARK			23 25 34	23 35 34				600sec
8844	BIAS(4)			23 38 48	[redacted]				
8845	DARK			00 07 29	00 17 29				600sec
8846	BIAS(4)			00 28 28					

Spectr. Te
Focus...
Spectr. Te
Exp Mtr

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... (14)

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
										SATURATED AT ONE END	
								1c;			
								3c;			
								4c;		LIGHTS ON SHELF SEEN IN DARK	
								5c;		LIGHTS OFF	
								6c;		LIGHTS OFF	
								7c;		"	
								8c;		$-101.75\,^{\circ}C = T_{CCD}$	
								9c;		SHELF [illegible]G GETTING SMALLER	
								10c;			
								11c;			
								12c;			
										$T_{CCD} = -100.5\,^{\circ}C$	
								13c;		$T_{CCD} \rightarrow -49.3 \rightarrow -100.7$, expose	
	All to Reasons c WORM									-100.5	

(13) pg #1 Sun - Mon

Date 1992 July 19/20 Observers W.x.L./T.G.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
8847	SKY diffuse	(Dome opened = 1 foot)		2 13.55		0 0	-34°		
48	SKY "	" "	"	13 57		0 0	"		
49	Comp					"	"		
50	BIAS (4)					"	"		
51	SKY			19 29 45		"	"		
52	Comp					"	"		
53	FLAT					"	"	THIN CLEAR	15 sec
54	SKY MIRRORS uncovered					0 0	≈ +35°		
55	Comp								
56 57	Focus	Comp / Stellar HURTOWN posns						FeAr CLEAR	60/60
FM000464 ABCDEF	HD144579	16 01 30	+39 25 36	Also Tel Normalizatn STAR		≈ 0000	+39 10	"N" mode	
8858	Comp								60 sec
8859	HD144579	16 01 30	+39 25 36	20 32 25		00 10 W			491 sec
8860	Comp							FeHr CLEAR	60 sec
8861	BIAS (4)								

Spectr. Temp. ..... Dome Temp./Hum. +21.4 63%/lt Transparency Conditions ... Fine ... scat thin cloud ...

Focus ... 6.62 ..... @ 20:30 No FAINT Tonight (16)

Spectr. Temp. ..... Dome Temp./Hum. +21.3°C .. 63.7% 90CGain

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks 490 0 50 1024 9 1 CONFIG	Quality
4000				CHSS CCD	G=4900 1800/inch	200μ Full	5010	4		CCDT = -116°C	
17,300								5			
								5ci			
								1c			
17,600								6			
								7			
								8			
22,900								9		CCDT = -100°C	
								10			
								11ci 12ci		Stellar UV SI Red No wind at all Dome W SW	
39x39 pixels		6.66	dG8	[6 frames	4x 67m sec + 2x 133m secs)	200μ Slit Head					
								13ci			
4300								14ci	Std Vel		
								15ci			
								1ci			

(14) Pg #2

Emulsion Batches:

Date 1992 JULY 1920 Observers W. x L. / .. Tq

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
CC08862	Comp							FeAr Clear	60sec	
8863	BD+41 2447	13 54 58	+41 18 19	20 57 13					720sec	216
8864	"			21 04 35					780	330
8865	"			21 18 33		03 06W			720	280
8866	Comp							FeAr Clear	60sec	
8867	BD+41 2447			21 34 18					800sec	145
8868	Comp							FeAr Clear	60sec	
8869	Comp							"	"	
8870	HD126053	14 18 06	+01 43	21 55 39		03 23W			900s	1078
8871	Comp							FeAr Clear	60sec	
8872	BIAS(4)					03 26W				
8873 → 8875	FLATS x 3							TUNG A Clear	15sec	
8876	Comp							FeAr Clear	60sec	
8877	IE 1919+0427	19 16 50	04 22 09	22 30 10					1176	148
8878	Comp							FeAr Clear	60sec	

Spectr. Temp. ..... Dome Temp./Hum. +21.0°C. 70% H Transparency Conditions .. Clouding in .....

Focus ... 6.62 .....

(18)

Spectr. Temp. ..... Dome Temp./Hum. ..... CLH MBOA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=4900 1800/mm/mm	200μ FULL	5010Å	16ci			
316	2"	9m.48						17ci	WxL pgm	≃ 400 ADU above bkgnd	
330			FD					18ci			
280								19ci			
								~~20ci~~			
145								~~21~~ci		Clouding in.	
								~~22~~ci			
								23ci			
1078	2"4"	G27	G1V					24ci	Std WL	Cloudy (clearing)	
								~~25ci~~			
								26ci		MAX = 10K ADU	
								27ci			
148		10	G5V					28ci		Cloud again at end	
								29cc			

(19) Pg #3

Date 1992 July 19/20 Observers WxL/Tn

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD8879	IE 1919+0427	19 16 50	04 22 09	23 02 49					1500
8880	comp							FeAr Clear	60sec
8881	IE 1919+0427	19 16 50	04 22 09	23 30 52		00 07W			1342
8882	comp							FeAr Clear	60sec
8883	BIAS(4)								
→8884 8886	FLATS x 3					00 17W		Tung Clear	15sec

Spectr. Ter
Focus...
Spectr Ter
Exp Mtr
25?
300

Spectr. Temp. ..... Dome Temp./Hum. +20°C 74.8% Transparency Conditions ... PART. Cloudy .....

Focus ... 6.62 .....

Spectr. Temp. ..... Dome Temp./Hum. +19.8°C 74.0% → Completely Cloudy (20)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
257	2"	V 10.0	G5V	CASS CCD	1800 l/mm	200µ	5010R	27 cc	W x L pgm	FOR 4 cols. 200 10µ Sum Avg o bare bias	
								~~28 cc~~			
200								29 cc			
								28 cc			
								1 cc			
								30 cc		MAX 12.4 K ADU	
						All	To persons	& Work			

Pg 42

Date 1992 JULY 20/21 Observers [Fe] [Rim] ... T.n. / F.Ber ...

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	
CC08887	BIAS (4)									
8888	Comp							FeAr Clear	60sec	
8889	HD171232	18 28.5	+25 25	22 06 25					1423	700
8890	Comp	Tel also	normalized	on this STAR	(1992.5 epoch)			FeAr Clear	60sec	
FM000465 ABC DEF	HD171232			~22 30		00 20E		"N" mode		
8891	BIAS (4)									
8892	Comp							FeAr Clear	60sec	
8893	~~HD~~ U U Her	16 3227	+38 1016	22 42 37		02 12W			500	850
8894	Comp							FeAr Clear	60sec	
→ 8895 8897	FLATS x 3					02 17W	+38°	TUNG Clear	15sec	
8898	Comp							FeAr Clear	60s	
8899	HD162714	17 4717	+06 07 12	23 21 36		01 18 W			537s	1500
8900	Comp							FeAr Clear	60sec	
8901 8903	FLATS x 3					01 22W	-6 08	TUNG A=1/2	10sec	
8904	Comp FOR HD203156							FeAr Clear	60sec	

Spectr. Temp. ..... Dome Temp./Hum. +17.8°C 64.6% Transparency Conditions ..PART. cloudy .... pg 41 ...

Focus ....6.62.....

Spectr. Temp. ..... Dome Temp./Hum. .....

90 CGAIN as usual (22)

CCDT → −100°C FANS ON

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G4900 1800 l/mm	200u FULL	5010Å	1ci			
								10ci			
700	3"-4"	V 7.73	G8II					16ci	stdvel	700 ADUs sum AVG above too cloudy now Bias	
								12ci			
47x47 pixels		V 7.73	G8II	4x67 msec Int; +8x133 msec		200u Head Lower Right		6 Frames	Seeing Test	Dome SW Thin cloud Med → Strong NW wind	
								1ci		Pone T = +15.7°C	
								13ci		Dome Hum = 71.7%	
850	3"-4"	V 8.9	F8I					14ci	Fe pgm		
								15ci			
							5010Å	16ci		12.8 K ADU max	
					G=5930 1800 l/mm		6450Å	17ci			
≈ 1500	4"	V 6.15						18ci	Rm pgm		
								19ci			
								20ci		10 K MAX ADU	
								21ci			

(17) Pg #2

Date 1992 JULY 20/21.. Observers [R.M.] .. F.B. / T.M. .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD 8905	HD 203156	21 15 23	+37 49	23 47 15		01 43 E			600s
8906	Comp							Feather Clear	60sec
8907	BIAS (4)					01 42 E	+38°13		
8908	Comp							Feather Clear	60sec
8909	HD 214975	22 36 55	+56 18 24	00 06 11		02 41 E			840
8910	Comp							Feather Clear	60sec
8911	Comp							"	"
8912	HD 198726	20 47 13	+27 32 30	00 32 27		00 32 E			449
8913	Comp							Feather Clear	60sec
8914	Comp							"	"
8915	HD 187691	19 46 12	+10 10 00	00 47 15		00 48 W			720
8916	Comp							Feather Clear	60sec
8917	Comp							"	"
8918	HD 177724	19 00 49	+13 43	01 06 31		01 46 W			327
8919	Comp							Feather Clear	60s
8920	BIAS							THAR	
8921-23	FLATS x3							A=1/2	10s

Spectr. Temp. ..... Dome Temp./Hum. +14.7°C 71.7% Transparency Conditions ..PART. Cloudy.... pg #2...

Focus ...6.62.....

Spectr. Temp. ..... Dome Temp./Hum. +14.3°C 78%

(24)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4200	3"-4"	✓ 5.8 -5.9	F2	CASS CCD	G=5930 1800ln/mm	200x Full L	6450Å	22c	Rm pgm	7000 ADUsum AVG Top priority	
								23c			
								1c			
								24c			
500	4"	✓ 8.40	GOIb					25c	Rm pgm	1000 ADUsum AVG above bias Same cloud again (5 cols)	
								26c			
								27c			
2050	3"-4"	✓ 5.75	GOIb					28c	Rm pgm	Dome Hum = 76.4% cloud	
								29c			
								30c			
1760	3"	✓ 5.11	F8V					31c	std vel		
								32c			
								33c			
24000		✓ 2.99	A0					14c 15c	Telluric Std	1.266 AIRMASS	
								16c		IR MAX ADU (Pic)	

(7b) pg 1 Tues Wed

Date July 21/22 Observers HIW/FBr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
~~8924~~	Focus (steel)			~20:40					
8925	Focus (Comp)								
8926	Bias (4)								
8927	Comp							FeNe Clear	20 sec
8928	HD124897	14 11 06	19 42 30	21:10:26	21:10:35			"	9 sec
8929	Comp							"	20 s
8930	Comp							"	"
8931	HD123782	14 04 36	49 56 00	21:23:20	21:24:20			"	60 sec
8932	Comp							"	20 sec
8933-8935	Fist x 3							Try Y4	33s
8936	Comp							FeNe Clear	20 sec
8937	Bias (4)								
8939	AC+76 5308	15 43 12	76 20 00	21:56:52		~3 W		"	952 sec.
8938	Comp for AC+62 26749								20 sec
8940	AC+62 26749	17 34 30	61 45 00	22:59:56				"	649 sec
8941	Comp								20 s

Spectr. Temp. ..... Dome Temp./Hum. 15.6°C / 61.7% Transparency Conditions Clear. (25)

Focus 6.6.2 FANS OFF

Spectr. Temp. ..... Dome Temp./Hum. ..... Format: 480 0 50 1024 4 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CLAMBDA	P.H.	Program	Remarks	Quality
				Cass CCD	1800 ℓ/mm G=4990	30μ triple	5140 Å				
								1ci			
24333								3ci			
14000		O.K.						4ci	Std. Velocity		
								3ci			
								3ci			
2500		5.25 V	M2III ab					5ci	Std Velocity		
								3ci			
								6ci			
17926								3ci			
								1ci		Dome Temp 13.1°C	
~~1800~~ ~40?		13.0 p	M4					7ci	KK Program	Encoder deltas: 0 0 15 / 0 1 12 readout early due to crash	
								3ci			
		9.95 V	M1 Ve					8ci	KK Pgm.	Readout early due to sudden cloud.	
								5ci			

Pg 2

(27)

Date July 21/22 Observers HIW/Fbr

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
8942	Comp							FeNe Clear	20 sec
8943	AC+65 6955	20:29:00	65:06:00	00:22:46	01:22:46	0:35 W	+65		3600
8944	Comp							"	20s
8945	Bias (4)								
8946	Comp							"	20s
8947	AC+75 8347	21 57 36	75 08 00	01:35:05	02:35:05				3600 sec
8948	Comp							"	20 sec
8949	Comp							"	"
8950	BD+57 2735	23 19 54	57 20 00	02:51:28	03:41:28				3000 sec
8951	Comp							"	20 sec
8952	Bias (4)								
8953 -8958	FLAT x 6								

Spectr. Temp. ..... Dome Temp./Hum. 12.3°C/64.0% Transparency Conditions Scattered Clouds.

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

(28)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								3ci			
1023		10.4 ↓	M3					9ci			
								3ci			
								1ci		Dome Temp 11,5°C	
	↘	10.5 ↓	M0					3ci			
669								10ci			
								3ci			
								3ci			
640		10.05	M2e					1ci		Sunrise	
24670											
				not Bessarabian							

(19)

Date July 22/23 1992 Observers Hdy/Fbt

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD8959.Fts	BIAS(4)			22 03 56					
8960	"FLAT"			22 06 19		00h05m W	-27° 15'		356sec
8961	"FLAT"			22 13 52		"	"		903sec
8962	"FLAT"			22 33 13		"	"		2587sec
8963	BIAS(4)			23 18 08					
8964	DARK			23 22 07					600sec
8965	BIAS(4)			23 33 33					

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..OVERCAST / RAIN.....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD		200μ			Hdy tests		
50K					1800 G=6020		6563Å	3ci		SECONDARY MIRROR COVER FLAT WITH FLASHLIGHT	4700 ADU
120K								4ci		WITH FLASHLIGHT	12000 ADU
125K	T_{CCD} = -100.3 - -95.0							5ci		WITHOUT FLASHLIGHT	12000 ADU
	T_{CCD} = -95.0										
	T_{CCD} = -94.8 - -93.1			DEWAR STARTING TO			WARM UP	6ci			
	T_{CCD} = -93.0°C										
							ALL TO		PERSEUS AND	WORM	

(5) 8941 Thurs./Fri

Date 1942 July 23/24 ... Observers [Fe.] [Rm.] ... Fbr./Tes.

Emulsion Batches: .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mir
CCO 8966 8967	Focus Test	Comp/stellar Hartmann Pos				00 07W	+39°	FeAr Clear	15/15	
8968	BIAS(4			2025						
FM 00 ABCDEF 446	HD144579	16 01 30	+39 25 36		(4×67msec Int + 2×133msec)			'N' mode		
8969	Comp							FeAr Clear	60sec	
8970	HD144579	16 01 30	+39 25 36	20 35 59		00 27W			30s	-40
8971	Comp							FeAr Clear	60sec	
8972	Comp							"	60sec	
8973	U U Her	16 32 27	+38 10 16	20 48 48		00 30 W			1/60s	1340
8974	Comp							FeAr Clear	60s	
8975 8977	FLATS ×3							Tung Clear	15sec	
8978	Comp			21 34 15				FeAr Clear	60sec	
8979	HD144579	16 01 30	+39 25 36	21 34 15		01 27W			2s	1340 160
8980	Comp							FeAr Clear	60sec	
8981	BIAS(4)									
8982	Comp for	HD203456	~~test plate~~					FeAr Clear	60sec	

Spectr. Temp. ..... Dome Temp./Hum. +17.3°C ... 74% Transparency Conditions ... Fine ..... pg. +1 .....

Focus .... 6.66 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

(82)

40 C Gain No FANS

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=4900 1800 l/mm	200μ Full	5010Å	5ci 4ci	Focus Test	Right On 360° 12 10Z4 40 1 CCD FTM	
										Dome T = +1 7.4°C	
	1-2"	V 6.66	dG8	Dome WSW (no wind)		200μ Lower Right of SLIT			Seeing Test	Also Tel normalized star	
								3ci	Std vel		
2400	1"	V 6.66						4ci	"	≈ 2500 ADU Sum AVG Above Bias (5 cols)	
								5ci			
								6ci			
1390	1"-2"	V 8-9	F8I					7ci	Fe pgm	1500 ADU Sum Avg above Bias	
								8ci			
					G=4900		5010Å	9ci		12.4K max ADU / pixel	
					G=5430 1800 l/mm		6450Å	10			
2460	1-2"	V 6.66	dG8					11ci	Std vel		
								12ci			
										Dome T = 16.6°C	
								13ci			

pg #2

Date 1992 July 23/24 Observers [Rea] Fbr/Tag

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD8983	HD203156	21 15 23	+37 49	21 53 36		0327E			482
8984	Comp							FcAr Clear	60sec
8985	Comp							"	"
8986	HD162714	17 47 17	-06 07	22 10 14		0018W			564
8987	Comp							FcAr Clear	60sec
8988	Comp							"	"
8989	HD173297	18 39 20	-20 45	22 26 57		00 10W			2242
8990	Comp							FcAr Clear	60sec
8991	BIAS (4)								
8992	Comp							FcAr Clear	60s
8993	HD198726	20 47 13	+27 32 30	23 12 50		0139E			519
8994	Comp							FcAr Clear	60s
8995	Comp							"	"
8996	HD214975	22 36 55	+56 18 24	23 30 56		0249E			1800
8997	Comp							FcAr Clear	60s

Spectr. Temp. ..... Dome Temp./Hum. 16.4°C ... 80% Transparency Conditions ... Fine ..... pg 42

Focus ... 6.66 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

(34)

CCD T = -101°C

480 0 50 1024 4 1 CCDFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5900	1"-2"	V 5.8 5.9	F2	CASS CCD	G=5430 1800l/mm	200 Full	6450Å	14c;	Rm pgm	15,000 ADU Sum AVG above Top Priority	
								15c;			
								16c;			
6600	1"-2"	V 6.15	GOIb					17c;	Rm pgm	18000 ADU Sum AVG above pics.	
								18c;			
								19c;			
3530	2"	V 7.48	GOIb					20c;	Rm pgm		
								21c;			
								1c;		Dome T=+15.3°C	
								22c;			
6900	2"	V 5.15	GOIb					23c;	Rm pgm	Hum=87.2%	
								24c;			
								25c;			
3100	1"-2"	V 8.40	GOIb					26c;	Rm pgm	7K ADU Sum Avg	
								~~27c;~~			

(25) PJ #3

Date 1992 July 23/24 Observers [Rm] Fbr/Tm

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC08498	Comp							FeAr clear	60sec
8999	HD154417	17 00 12	+00 51	00 13 46					450
9000	Comp							FeAr Clear	60sec
9001	Comp							"	"
9002	HD187691	19 46 12	+10 10	00 31 32					273
9003	Comp							FeAr Clear	60sec
9004	Comp							"	"
9005	HD203156	21 15 23	+37 49	00 45 14					482
9006	Comp							FeAr clear	60sec
9007	BIAS(4)								
9008 9010	FLATS x3					00 27E	+38°	Tung A=1/2	10sec

Spectr. Temp. ..... Dome Temp./Hum. +15.0°C 87.2% Transparency Conditions ... Fine ... pg #3

Focus ... 6.62 ...

Spectr. Temp. ..... Dome Temp./Hum. +14.5°C 89%

(35)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=5930 1800 l/mm	200μ Full	645R	27ci			
~4000	2-3"	V 6.01	G0V					28ci	Std vel		
										Hum = 87.7% T = 14.9°C	
								29ci			
8400	2"	V 5.11	F8V					30	Std vel		
								31ci			
								32ci			
7940	1-2"	V 5.8 5.9	F2					33ci	Rm pgm	Top priority 2nd exp	
								34ci			
								1ci		H 87.7% +14.8°C	
								35ci		MAX 2.0 f AM	
				All To Persons : WORN						Humidity Prob.	

(37) pg 1.

Date July 24/25 Observers [K.K.] Hlw/Tn/Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
ceq4681	Hartman inboard } Focus pair			20:47				ThAr	5s	1300
4682	Hartman outboard }							ThAr	5s	
4683	Comp			21:40				ThAr	3 sec	
4684	HD137909	15:23:42	+29:27	21:42:33			+29		1084 sec.	1450
4685	Comp							"	3 sec	
4686	Bias (4)									
4687	HD137909	15:23:42	+29:27	22:08:01					1330 second	1570
4688	Comp							ThAr	3 sec	938
4689	Comp							ThAr	4 sec	
4690	HD8890	1:22:36	88:46	22:48:01					621 seconds	2160
4691	Comp							ThAr	4 sec	
4692	HD8890	1:22:36	88:46	23:02:17					465 sec	2140
4693	Comp							ThAr	4 sec	
4694	BIAS (4)									
4695	Comp at HD3712 posn							ThAr	4 sec	

Spectr. Temp. ..... Dome Temp./Hum. 18.3°C / 74% Transparency Conditions ..... Fine .....

Focus ... 240 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Format: 0 0 256 1024 4 1 (88)

90 CCD Gain CCD T - -100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	X Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1300				Echelle CCD	.4540	.277 .205	width 60µ 600µ Height	Echelle Tilt 1892		600 ℓ/mm Telescope focus 2141 (Blue → Red gradient)	
										OUTBOARD sl Red shifted 0-.5 pixel	
								1ci		4480Å center of 4th complete ORDER FROM TOP	
1450		3.66	F_p					2ci	KK		
								3ci			
								1ci			
1570		3.66	F_p					4ci		~ 91% Humidity ~5000 sum Av. dark ex	
938								5ci			
								5ci			
2160		2.5	F8 1b					6ci		~10000 ADU - 4481 Å	
								7ci		MAX 10K ADU	
2140		2.5	F8 1b					4ci		MJD = 2448525.6090	
								5ci		Dome T = +16.2°C	
								1ci			
								3ci			

(89) pg#2

Date 1992 JULY 24/25. Observers [illegible] H.W. F.Br. T.n.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD4696	HD3712	00 34 48	+55 59	23 27 14		E			539 sec Cont.
4697	Comp							Th Ar	4 sec
4698	HD3712	00 34 48	55 59	23:38:42					614 sec
4699	Comp							ThAr	4s
4700	Comp							"	4s
4701	HD186791	19 41 30	+10 22	23:59:32	00:07:32	0:16W			480 sec
4702	Comp							"	4 sec
4703	Bias (4)								
4704	Flat					03 W	+20	Tung	15 sec
4705	Flat (9)	Average of 9 using		FLAT9.15s Batch					
4706 4707	FLATS x2							TUNG	33s
4708	BIAS(4)								
		Note	FLATS	4706,07 & BIAS		4708 may not		be	
		quite valid, as		CCD Temp was		probably adjusted for.			

Spectr. Temp. ..... Dome Temp./Hum. +16.1°C 91.8%H Transparency Conditions ... PART Cloudy & wet Then Cloudy (40)

Focus .. 124.0 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	X Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2090		V 2.23	KOIIIa	Echelle CCD	.4540	60u width 600u Height .205		~~4ci~~	Stdvel		
								3ci			
2260		V= 2.23	KOIIIa					4ci			
								5ci			
		~~2.72~~	~~K3II~~								
1540		2.72	K3II					6ci	stdvel		
								7ci		Dome Temp 15.8°C	
						60u width 800u Height=.185		~~8ci~~		Max ADU 7723	
								~~9ci~~		Max ADU ~6600	
								2c.		MAX = 14K ADU	
								1ci		Dome T = +16.3°C	

Coldest setting after ce 4705 completed, but before Last Bias. ie CCD Temp Prob ~ −110°C

Pg 1 ~~SAT Sun~~ July 26/27 sun-mon

Date ~~1992 July 25/26~~ Observers [K.K.] H.W.L.T.O.L. ~~E.~~ ..

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
Ce04709	BIAS(4)								
	~~Comp~~							ThAr	45e
4710	Comp							ThAr	4se
4711	HD8890	01 22 36	+88 46 00	21:27:11		8:30 E	+89:20		5 11s
4712	Comp							"	4s
4713	HD8890	01 22 36	+88 46 00	21:38:48		8:30 E	+89:20		500s
4714	Comp							"	4s
4715	Comp								4s
4716	HD137909	15 23 42	+29 27 00	21:55:33		2:52 W	+29		1330 sec
4717	Comp							"	4s
4718	HD137909	15 23 42	+29 27 00	22:20:12					1101 sec.
4719	Comp							"	4s
4720	Bias (4)								
4721	Comp							"	4s
4722	HD186791	19 41 30	+10 22 00	22:48:30		0:27 E			1618
4723	Comp							"	4s

Spectr. Temp. ..... Dome Temp./Hum. ~~[illegible]~~ +19.3°C 94.3% Transparency Conditions ... P.A.R.T. Cloudy & Hazy ~~2 Large Satellite Tracks~~ (42)

Focus ....240.....

Spectr. Temp. ..... Dome Temp./Hum. ..... 90CG4in CCDT=-100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	✓ Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks 0 0 256 1024 4 1 CCD FMT	Quality
				Echelle CCD	.4540 600l/mm	60μ		1ci		CCDT = -101°C	
						60μ width = .277 600μ Height = .205		4ci		~~Cloud of Haze~~	
613								3ci			
1995	2"	2.5 ✓	F816					4ci	KK pgm	> 10K ADU Sum Avg above Bias for 6 Cols	
								5ci			
2005	2"	2.5 ✓	F816					6ci	KK	Tel Focus #2163	
								7ci			
								3ci			
1532	3"-5"	3.66 ✓	F_p					4ci	KK pgm	~6,000 (10,000) Sum ADU above Bias for central order	
910								5ci		MAX ADU 8147	
1468		3.66 ✓	F_p					6ci	KK		
								7ci			
								1ci			
								3ci			
2128	3"-5"	2.6 ✓	K3 II					4ci	KK & Std Vel	~10000 Sum Avg. ADU above Bias 4480Å order	
								5ci			

(12) pg 2

Date July 26/27 Observers [KK] HIW/Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ceφ4724	Comp							ThAr	4 sec
4725	HD183912	19 26 41	+27 45 00	23:24:13		0:10 W	+28		830 s
4726	Comp							"	4 sec
4727	Comp							"	"
~~4728~~ 4728	HD20209	21 08 41	+29 49 00	23:47:12		0:59 E	+30		1409 sec.
4729	Comp							"	4 sec.
4730	Bias (4)								
4731	Comp							"	"
4732	HD215182	22 38 19	+29 42 00	00:17:28		2:02 E			1190
4733	Comp							"	4 s
4734	Comp							"	4 s
4735	HD204867	21 26 18	-06 01 00	00:42:54		0:24 E			1252 sec.
4736	Comp							"	4 s
4737	Comp								4 s
4738	HD3712	00 34 48	+55 59 00	01:18:07		3:12 E	+56		400 s
4739	Comp							"	4 s

Spectr. Temp. ..... Dome Temp./Hum. 18.1°C / 87.2% Transparency Conditions .... Partialy cloudy ....

Focus ..... 240 .....

Spectr. Temp. ..... Dome Temp./Hum. 16.1°C / 77.5%

Windy now FROM N W much Dryer Air now too.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Echelle CCD				5ci			
2160	~3"	3.24	KSII? +B?					6ci	Kk Pgm	~7000+ Sum ADU above bias	
861								3ci			
725								5ci			
2171		3.2	G8II					7ci	kk Pgm.		
646								3ci			
								1ci		Dome Temp = 16.9°C CCD Temp -100.5°C	
								5ci			
2190	5"	3.0	G8II? +F?					2ci	kk pgm		
								3ci			
								3ci			
1795		2.91	GOIb					4ci	Std. Vel.		
								5ci		Max ADV 6515	
								3ci			
2080		2.23	KOIIIa					6ci	Std. Vel		
								3ci			

(4) pg 3

Date July 26/27 Observers [KK] HIW/Tn

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
4740	Bias (4)								
4741	Comp							ThAr	4s
4742	HD 8890	01 22 36	+88 46 00	01:37:20		4:50 E			480s
4743	Comp							"	4
4744	HD 8890	01 22 36	+88 46 00	01:46:53					529
4745	Comp							"	4s
4746	Comp							"	4s
4747	HDZ09790	22 00 54	64 08 00	02:03:46		0:36 W			1992s
4748	Comp							"	4s
4749	Bias (4)								
4750	Comp							"	4s
4751	HD34029	05 09 18	45 54 00	02:49:09					400s
4752	Comp							"	4s
4753	HD 34029	05 09 18	45 54 00	02:57:37		6:08 E			330 sec.
4754	Comp								4s

Spectr. Te
Focus ...
Spectr. Te

Exp Mtr	
2420	480s
497	4
3[illegible]	529
	4s
	4s
1013	1992s
	4s
	4s
380	400s
	4s
380	330 sec.
	4s

Spectr. Temp. ..... Dome Temp./Hum. 15.9°C / 76.4% Transparency Conditions ... Clear ... windy ... scattered clouds (46)

Focus ... 240 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Echelle CCD				1ci		Dome Temp 15.9°C	
								3ci			
2420		V 2.5	F8 Ib					7ci	KK		
407								5ci			
~~3000~~		V 2.5	F8 Ib					~~4~~ ci	KK		
								3ci			
								3ci			
1013	4"	B= 4.63	A3m					6ci	KK	5600 Å Sum Avg of 4480 Å	
								3ci			
								1ci			
								5ci			
3180		V .08	G6 III + G2 III					7ci	KK		
								3ci			
3800		V = .08	G6 III + G2 III					4ci	KK	Header is wrong (start time) (POR 96 Tau)	

(47) Pg 4

Date July 26/27 Observers [KK] HIW/TH

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
~~EEO~~									
4755	Comp							ThAr	4s
4756	HD12929	02 01 30	22 59 00	03:14:20			+23:20		740
4757	Comp							"	4 sec
4758	Bias (4)								
4759 4760	FLATS x2					HRL 0 0	+30°	TUNG	30s
4761	FLAT using	FLAT 9.15s Batch		ie Average of 4 flats		"	"		15 sec each.

Spectr. Te
Focus....
Spectr. Te
Exp Mtr
2200

Spectr. Temp. ..... Dome Temp./Hum. +14°C 82.3% Transparency Conditions ..... Clear, some scattered cloud

Focus ....240.....

Spectr. Temp. ..... Dome Temp./Hum. +14.9°C 86%

(46)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		V		Echelle CCD		60u width 600u Height		3c			
2200	~5"	2.00	K2IIIab					2c	Std. Vel.		
~~2200~~								5c			
						800u	Height=.185	~~1c~~		MAX - 12K ADU/pixel	
						u	u	1c		MAX - 6.3K ADU/pixel	
					All To Perseus & WORM.						

(49) pg#1 ~~Mon~~-Tues - Wed

Date July 28/29.... Observers [KK] Hlw. Tn.......

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC 09011 09012	Focus Test					0 0	+39°	FeNe Clear	10/10
	~~Bills~~								
				~~20 18 42~~		~~0 0~~	~~-26 58°~~	FeNe Clear	20s
				~~20 32 03~~					

Spectr. Temp. ..... Dome Temp./Hum. 19.5°C 70.8%H Transparency Conditions ..... PART Cloudy .....
Focus ..... ~~6.62~~ 6.70 ..... — completely cloudy
Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
480 020	1024	10 1	CCD Fmt	CASS CCD	G=4990 1800 l/mm	310u		3 c s 4 c i		Stellar posn R.2 pixel Red	
480 050	1024	4 1	CCD Fmt					1 c i			
								5 c i			

(5) Fy #2 Wed - Thurs

Date 1992. July 29/30. Observers J.w. / I.T.

Emulsion Batches: .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cco 9013 9014	Focus Test	Comp/Stellar	Hartman posns			7 0 0	~+40°	FeNe Clear	10/15
9015	BIAS (4)								
9016	Comp		(6 FRAMES)					FeNe Clear	20s
FM00467	HD144579 seeing Test +00 c Tel		Normalizatn	STAR 'N' Mode		Int [4x67msec	Times 2x133msec]		
cco 9017	HD144579	16 01 30	+392536	20 21 32					754
cco 9018	Comp							FeNe Clear	20s
cco 9019	Comp							FeAr Clear	60s
cco 9020	HD189687	19 5615	+3646	21 04 39		07 20E			1200
9021	Comp							FeAr Clear	60s
9022	BIAS (4)								
9023	HD189687	19 5615	+3646	21 31 01		01 54 30E			1200
9024	Comp							FeAr Clear	60s
9025	HD189687			21 54 07					1200
9026	Comp							FeAr Clear	60s
9027	HD189687			22 17 00					1200
9028	Comp							FeAr Clear	60s

Spectr. Temp. ..... Dome Temp./Hum. 16°C 60% Transparency Conditions ... Some thin clouds

Focus ... 6.70 ...

Spectr. Temp. ..... Dome Temp./Hum. .....

No FANS tonight

90 CGain CCDT -> -100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
"				CASS CCD	G4486 1800 l/mm	200u Full	4340/A	3ci 4ci		360 0 10 1024 40 1 CCDPMT Stellar 2.3 pixel Red	
								1ci		480 0 50 1024 4 1 CCDPMT	
From 00487 A,B,C,D,E,F,F+s		V			G4483 1800 l/mm			5ci		DOME WSW for focusing Light NW wind TEST	
3700	2"	6.66	d68		G4483 1800 l/mm			6ci	Std vel		
					G4483 1800 l/mm			7ci			
					G4495 1800 l/mm			10ci		230/1 S/N 3400 max ADU sum AVG of 10 CCDs	
21,940	3"-4"							11ci		>12K ADU above Bias	
								12ci			
								1ci		PCMCT = +15.0°C	
27,500	3"							13ci			
								14ci			
28,700								15ci			
								~~16ci~~ ~~17ci~~			
28,500	2"-3"							17ci			
								18ci			

(9) pg #2 Wed-Thurs

Date 1.9.92. July 29/30 Observers Jun. I.Th

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCO9029	BIAS(4)								
9030	HD189687	19 56 15	+36 46	22 41 18					
9031	Comp							Fe Hr Clear	60s
9032 9033 9034	FLATS x3	[while still on HD189687]						TUNG CLEAR	45s
CCO9035	HD189687			23 15 02					120s
9036	Comp							Fe Hr Clear	60s.
9037	HD189687			23 39 25					150s
9038	Comp							Fe Hr Clear	60s.
9039	HD189687			00 08 41					150s
9040	~~BIAS(4)~~ Comp							Fe Hr Clear	60s
9041	BIAS(4)								
9042	HD 189687			00 38 55					35s
9043	Comp							Fe Hr Clear	60s
→ 9044 9045 9046	FLATS x3	[while on HD189687]						TUNG Clear	45s
9047	HD189687			00 58 58					

Spectr. Temp. ..... Dome Temp./Hum. +13.6°C ... 60.0%H Transparency Conditions . P.C.A.T. ... Cloudy ..... (59)

Focus .... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. +11.8°C ... 68.5%H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=4495 1800l/mm	~~200u~~ FULL	4390Å	1c;			
27,500	3"	V 5.19	B3IVe					19c;	Fy pgm		
								20c;			
								21c; 22 23		MAX = 8.4KADU/pixel	
25,700								24c;			
~~DK 5300~~ 60s								25c;			
20,000								26c;			
								27c;			
15,500								28c;		cloudy & end	
								29c;			
								~~31~~ 30c;		Dome T = +11.9°C	
1265								30c;		Cloud	
								31c;			
								32c;		7.7K ADU max.	
23600								33c;		Thin Cloud	

(5) Pg #3 Wed - Thurs

Date 1992 July 29/30 Observers J.w.n / T.q

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc9048	Comp							FeAr Clear	60s.
9049	HD 189687	19 56 15	+36 46	01 22 30		01 57W			800s
9050	comp							FeAr Clear	60s.
9051	Bias (4)								
9052	HD189687			01 47 06					1200
9053	Comp							FeAr clear	60s
9054	HD189687			02 11 17		02 46 30W			2100s
9055	Comp							FeAr Clear	60s
9056	HD189 687			02 33 55	done ✓				1200s
9057	Comp							FeAr Clear	60sec
9058	HD189687			02 57 56					1600s
9059	Comp							FeAr Clear	60secs
9060 9062	FLATS x 3			03 32				Tung Clear	45sec
9063	BIAS(4)								
9064 9065	Focus Test					03 55	+37°	FeAr Clear	20/27

Spectr. Temp. ..... Dome Temp./Hum. +11.6°C 69.0% Transparency Conditions ..Clearing again.... (5).

Focus ... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. +10.9°C 72.7% cloud by dawn

CLEAR BDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G 4495 1800 l/mm	200μ Full Length	4390A	34ci			
33700	3"	V 5.19	B3 IIIa					35ci	Pyppgm		
								1?ci			
								1ci		Dome T = +11.7°C	
34,000								15ci		[≈20k ADU for 10 cols above bias]	
								16ci			
30000	3"							17ci			
								18ci			
18000								19ci		Wrong cache. Start time will have to be edited.	
								18ci			
12600	3"							24ci		Cloud again	
								25ci			
								21ci + 22ci + 23ci			
								1ci			
								3ci 4ci		Dome T = 10.8°C	
All to Persons + work Tn									Stellar	vs/ Blue ≈2 pixels	

(9) p1

Date Aug 4/5 -92 Observers Ri/Fbr (SERVICE)

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
cc@9066	Focus (Gmp)									
9067	Focus (Sec)									
FM00469	HD144579		(367ms x4)(133ms x2)							
9068	~~Flat~~ Bias(4)									
9069.	Comp							Fc/Sr Clear	90s	
9070	HD144579	16 01 30	+39 25 36	20 33 31	20 43 31	01 16W			600	1950
9071.	Comp						Fc/Sr Clear	Fc/Sr Clear	60s	
9072	Comp							Fc/Sr Clear	60s	
9073	2U Her	16 32 27	+38 10 16	20 55 44					2400s	867
9074	Comp							Fc/Sr Clear	60s	
9075 9076 9078	Flat x3							Tung Clear	15s	
9077	Comp		NOTE 'λ' CHANGE TO 4554Å					Fc/Sr Clear	25s.	
9079	HD204848	21 26 12	-10 11 06	22 25 44	01 37E				3000s	1537
9080	Comp							Fc/Sr Clear	25s	
9081	Comp							Fc/Sr Clear	25s	

Spectr. Temp. ..... Dome Temp./Hum. 14.9°C/86.9% .Transparency Conditions ..... CLEAR ..... (58)

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. 14.0°C/84.5% (2230) FANS ON

480 0 50 1024 4 1 90 cgain

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD		200 μ			FOCUS TEST	O.K.	
									FOCUS TEST	DOM WSW	
					(LOWER RIGHT OF SLIT)				SEEING TST	(ALSO NORMALIZATION)	
								1ci			
								3ci		AIRMASS = 1.0143	
1950	1"-2"	V 6.66	68V	CASS CCD	1800 G=4900	200 μ	5010Å	4ci	STD. VEL	2400 ~~3600~~ DOM SUM Avg.	
										COMP MAY BE WEAK	
867	1"-2"	V 8-9	F8I		1800 G=4900	200 μ	5010Å	5ci	Fe PROGRAM	1200 Σavg above bkgrd.	
					↓		↓				
										10K max	
					1800 G=4614	200 μ	4554Å	8ci	rG Pgm.	T=14.1°C Hum=84.7%	
2537		V 7.4	G0V	CASS CCD	1800 G=4614	200 μ	4554Å	10ci	rG Pgm	480 0 200 1024 1 1 ccdfast	
					↓	↓	↓	9ci	↓	3600 Σavg NO BINNING!	

(5) p^2

Date Aug 4/5-92 Observers Ri|Fbr (Service)

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9082	HD197913 (EGg)	20 42 10	33 36 00	22 58 55					89.
9083	Comp							Fe/Ar Clear	25s
9084	Bias (4)								
9085 9086 9087	Flat x3							Tung Clear	180s
9088	Bias (4)								
9089	Bias(4) (@6450Å)		NOTE "λ" CHANGE TO 6450Å						
9090	Comp							Fe/Ar Clear	60 sec
9091	HD203156	21 15 23	+37 49	00 41 48					619
9092	Comp							Fe/Ar Clear	60s
9093	Comp							Fe/Ar Clear	60s
9094	HD187691	19 46 12	+10 10 00	01 05 01		02 06 W			704
9095	Comp							Fe/Ar Clear	60s
9096	Comp							Fe/Ar Clear	60s
9097	HD198726	20 47 13	+27 52 30	01 25 40					1200
9098	Comp							Fe/Ar Clear	60s
9099	Bias(4)								

Spectr. Temp. ..... Dome Temp./Hum. 13.4°C/81.2% Transparency Conditions ..... CLEAR ..... (60)

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. 12.7°C/79.9% (00138) FANS ON!

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
12K.		V 2.4	KO II	CASS CCD	1800 G=4614	200 μ	4554Å		rG Pgm.	480 0 200 1024 13K Sum Avg above bkgnd. NO BINNING	
					↓		↓		↓		
					1800 G=5930	200 μ	λ=6450Å		Rm Pgm.	T=12.7°C Hum: 81.2% AIRMASS=1.0049.	
										480 0 50 1024 41 used Cnt	
5000	*2"	V 5.89	F2	CASS CCD	1800 G=5930	200 μ	6450Å	4ci	Rm Pgm	TOP PRIORITY SMR	
8000		V 5.11	F8V				6450Å		STD. VEL.	T=12.9°C Hum: 79.9% 18K Sum Avg Above bkgnd.	
6454		V 5.75	GOIb	CASS CCD	1800 G=5930	200 μ	6450Å		Rm Pgm.	AIRMASS=1.0284 16K Sum Avg Above bkgnd.	

(1/6) p3

Date . Aug. 4/5 . . 92 . . . Observers . . . E.Rm2. Ri/F.Br. . . . . .

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9100	Comp							FeAr Clear	60s
9101	HD214975	22 36 55	+56 18 24	02 03 28	~~01 02W~~	01 02W			3600s
9102	Comp							FeAr Clear	
9103	Comp							FeAr Clear	
9104	HD203156	21 15 23	+37 49	03 11 26		02 42W			650
9105	Comp							FeAr Clear	60s
9106	Bias (4)								
9107	Comp							FeAr Clear	60s
9108	HD223094	23 41 23	+28 08 54	03 31 56		00 49W			1450
9109	Comp							FeAr Clear	60s
9110 9111 9112	Flats x 3 (at HD223094 pos'n)							Trng A=1/2	10 sec
9113	Comparison for slit rotation test							FeNe	2s
9114	bias								

Spectr. Temp. ..... Dome Temp./Hum. 12.9°C/79.9% Transparency Conditions ... CLEAR ... (62)

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... (90 again) 480 0 50 1024 4 1 ccdfmt

FANS ON!

Comparison Filter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	60s					CASS CCD	1800 G = 5930	200 μ	CENTRED @ 6450 Å				
	3600s	2872	>2"	V 8.40	CO1b	↓	↓	↓	6450 Å	4ci	Rm Pgm.	(Z Lac)* NOT SURE OF FIELD MAY NOT BE STAR	
									↓			VERY POOR OBSERVING.	
												* SEEING IS QUITE BAD.	
						↓	↓	↓				* DOME SWEATING	
												OUTSIDE HUMIDITY ≈ 95%	
	65s	6000	1"-2"	V 5.8 5.9	F2	CASS CCD	1800 G = 5930	200 μ	6450 Å	4ci	Rm Pgm.	TOP PRIORITY - 2ND EXPOSURE	
	60s												
	60s											DOME T = 12.6°C / HUM = 80.4%	
	1450	5500		V 7.45	K5 III	CASS CCD	1800 G = 5930	200 μ	6450 Å		STD. VEL.	14K SUM ALL ABOVE BEG.	
	60s												
	10x60s											> 10,000	
						ALL TO PERSEUS & WORM							
	2s						1200 5480	25DE	8700 Å?			NEW 250μ SLIT	

(3) p#1

Date . Aug 4/6-92..... Observers ....R2/FBr.(SERVICE)

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc09115	Focus (Comp)								
9116	Focus (Stel)								
FM00470	HD144579	16 01 30	+39 25 36						
#	~~HD144579~~								
9117	BIAS (4)								
9118	Comp							FcBr Clear	60s
9119	HD144579	16 01 30	+39 2536	20 28 35		01 12W			350
9120	HD144579	16 01 30	+39 2536	20 35 50					638
9121	Comp							FcBr Clear	60s
9122	Comp							FcBr Clear	60s
9123	HD162714	17 47 17	-06 0712	21 00 19					901
9124	Comp							FcBr Clear	60s
9125	FLAT	AT HD162714 POSITION						Tung n=1/2	
9126	FLAT							Tung n=1/2	
9127	FLAT							Tung n=1/2	
9128	BIAS (4)								

Spectr. Temp. ..... Dome Temp./Hum. ...18°C./61.5% Transparency Conditions ..... CLEAR ..... (64)..
(@2030)

Focus .....6..64.....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS OFF!
(90 CGAIN)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 G=5930	200 μ	λ=6450Å			480 0 50 1024 41	
		V 6.66	dG8		(4×67ms)(2×133ms)				DOME SW	NORMALIZATION AND SEEING TEST	
										AIRMASS 1.0271	
2800		V 6.66	dG8	CASS CCD	1800 G=5930	200 μ	λ=6450Å	4ci	STD. VEL.	[redacted] 6K Σ any above bkg.	
5000		V 6.66	dG8	CASS CCD	1800 G=5930	200 μ	6450 Å	4ci	STD. VEL.	1ST EXPOSURE LOW.	
6000	~1"	V 6.15	G0Ib	CASS CCD	1800 G=5930	200 μ	λ=6450Å	5ci	RM PGM.	Y Oph (CEPHID VARIABLE)	

P #2

Date .. Aug. 5/6-92 .... Observers .. R. / Fbr. (SERVICE)

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc Ø 9129	COMP		NOTE: CHANGE IN λ TO 5010 Å					FeAr CLEAR	75sec
9130	HD148283 (4414)	16 32 27	+38 10 16	21 30 34					2600s
9131	COMP							FeAr Clear	75sec
9132	BIAS (4)								
9133	COMP							FeAr Clear	75s
9134	HD171232	18 28 30	+25 25 00	22 24 19					700s
9135	COMP							FeAr Clear	75sec
9136	FLAT	AT HD171232 POSITION						Tung Clear	15s
9137	FLAT							Tung Clear	15s
9138	FLAT							Tung Clear	15s
			NOTE: CHANGE IN λ TO 4554Å						
9139	BIAS (4)								
9140	COMP							FeAr Clear	45s
9141	HD197713 (EC Xg)	20 42 10	33 36 00	23 09 21					75s
9142	HD197713	20 42 10	33 3600	23 11 24		00 51 E			108s
9143	COMP							FeAr Clear	45s

Spectr. Temp. ..... Dome Temp./Hum. 17.3°C / 62.5% Transparency Conditions .... CLEAR .... (66)

Focus ..... 6.64 ..... (2122) FANS OFF

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 a=4900	200 μ	λ = 5010Å			90 Cgain 480 0 50 1024 4 1	ccdCmt
2400	~1"	V 8-9	F8I	CASS CCD	1800 a:4900	200 μ	5010Å	7ci	Fe Pgm	AIRMASS = 1.0624 2K Above Background. Sum.	
2515	1"-2"	V 7.73	G8III	CASS CCD	1800 a=4900	200 μ	5010Å	8ci	STD. VEL.	AIRMASS = 1.0622 T = 16.8°C Hum = 63.8%	
										} 12.5 K AOU.	
										NOTE: NO BINNING!	
										480 0 200 1024 1 1	ccdCmt
20,000		V 2.4	KO III	CASS CCD	1800 a=4614	200 μ	4554Å	4ci	rG Pam.	15 K Sum Avg above bkg.	
35,000		V 2.4	KO III	CASS CCD	1800 a=4614	200 μ	4554Å	4ci	rG Pam	⇓	

CCD #3

Date Aug 5/6-92 Observers Ri | Fbr (SERVICE)

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mr
CCD 9144	Comp							Fe/Ar clear	45s	
9145	HD204848	21 26 12	-10 11 06	23 22 36		044 E			2404	5000
9146	Comp							Fe/Ar clear	45s	
9147	FLAT							Tung clear	180s	
9148	FLAT							"	"	
9149	FLAT	AT HD204848 POSITION						"	"	
9150	FLAT							"	"	
9151	FLAT							"	"	
			NOTE CHANGE TO λ = 6450Å AT CCD 9156							
9152	BIAS (4)									
9153	Comp							Fe/Ar clear	60s	
9154	HD203156	21 15 23	37 49 00	00 34 07		00 08 W			600s	8.08
9155	Comp									
9156	Comp							Fe/Ar clear	60s	
9157	HD187691	19 46 12	+10 10 00	00 57 17		02 03 W			784	20K
9158	Comp							Fe/Ar clear	60	

Spectr. Temp. ..... Dome Temp./Hum. 16.2°C/64.0% (2315) Transparency Conditions .....CLEAR.....

Focus .....6.64.....

Spectr. Temp. ..... Dome Temp./Hum. .....

FANS OFF

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 a=4614	200 μ	λ=4554Å	3ci		AIRMASS = 1.7895 480 0 200 1024 1 1 ccdfmt	
5000	~1"	V 7.4	GOI	CASS CCD	1800 a=4614	200 μ	λ=4554Å	5ci	rG Pam	2K above background (Sam Avg)	
										SEEING IS MUCH BETTER THAN LAST EVENING	
				CASS CCD	[illegible]	200 μ	[illegible]		[illegible]	480 0 50 1024 4 1 ccdfmt	
							λ=4554				
8108		V 5.8-5.9	F2	CASS CCD	[illegible]	200 μ	[illegible]	4ci	RM Pam.	TOP PRIORITY. (5K Max)	
							λ=4554				
					1800 a=5930	*	λ=6450Å			NEW WAVELENGTH	
20K		V 5.7	F8 I	CASS CCD		200 μ	6450Å	1	STD. VEL	DOME T= 14.9°C / H= 69.3%	

p#4

Date Aug. 5/6 -92 Observers R. J. For (Service)

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Eye Mir
cc@9159	BIAS(4)									
9160	COMP	21 15 23	+37 49 00					FcAr CLEAR	60S	
9161	HD203156	2115 23	+37 49 00	01 18 16		01 02 W			1200	2@300
			NOTE: cc@9161 IS SLIGHTLY				SATURATED!			
9162	HD 203156	21 15 23	+37 4900	01 40 31		01 14 W			609	OK
9163	COMP							FeAr Clear	60S	
9164	COMP									
9165	HD198726	20 47 13	+27 52 30	01 58 47		02 05W			925	.2K
9166	COMP							FeAr Clear	60S	
9167	FLAT							TUNG $\Delta=1/2$	10S	
9168	FLAT	AT HD198726 POSITION						TUNG $\Delta=1/2$	10S	
9169	FLAT							TUNG $\Delta=1/2$	10S	
9170	COMP							FeAr Clear	60S	
9171	HD214975	22 36 55	56 18 24	02 31 09	03 31 09	01 33W			3600s	4@3
9172	COMP							FeAr Clear	60S	

Spectr. Temp. ..... Dome Temp./Hum. 14.5°C/69.5% Transparency Conditions ..... CLEAR ..... (70)..

Focus ..... 6.64 ..... (0100)

Spectr. Temp. ..... Dome Temp./Hum. ..... Fans OFF

480 0 50 1024 4 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 G=5930	200 μ	λ=6450				
20,300		V 5.8 - 5.9	F2	CASS CCD	1800 G=5930	200 μ	λ=6450Å	6ci	Rm PgM	TOP PRIORITY ! (SATURATE)	
10K		V 5.8 - 5.9	F2	CASS CCD	1800 G=5930	200 μ	6450Å	6ci	Rm PgM	Top Priority 16K Sum Avg. AIRMAS = 1.1119	
12K		V 5.75	G0Ib	CASS CCD	1800 G=5930	200 μ	6450Å	7ci	Rm PgM	T Vul 20K Sum Avg.	
4042		V 8.40	G0Ib	CASS CCD	1800 G=5930	200 μ	6450Å	8ci	Rm PgM.	ZLac 5K SUM AVG. DONE T=14.7° Hum=67.1%	

p#5

Date . Aug. 5/6-92 ..... Observers .... Ri/Fbr (SERVICE)

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
cc@9173	BIAS(4)									
9174	Comp							FeAr Clear	60s	
9175	HD203156	21 15 23	+37 49	03 39 17		0316W			787	10K
9176	Comp							FeAr Clear	60s	
9177	Comp							FeAr Clear	60s	
9178	HD9138	01 24 57	+05 38	04 00 11		0042E			293	10K
9179	Comp							FeAr Clear	60s	
9180	FLAT							TUNG A=1/2	10s	
9181	FLAT	AT HD9138 POSITION						TUNG A=1/2	10s	
9182	FLAT							TUNG A=1/2	10s	

Spectr. Temp. ..... Dome Temp./Hum. 14.9°C/66.1% Transparency Conditions ..... CLEAR ..... 72 ...

Focus ..... 6.64 .....

Spectr. Temp. ..... Dome Temp./Hum. 14.8°C/66.8% (0030) FANS OFF!

CCD TEMP ~ -100.4°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 G=5930	200 μ	λ=6450Å			480 0 50 1024 4 1	
										Airmass = 1.2035	
10K	<1"	V 5.8-5.9	F2	CASS CCD	1800 G=5930	200 μ	λ=6450Å	9ci	Rm Pgm.	TOP PRIORITY (2ND EXPOSURE, 13K Sec Bkg	
10K		V 4.84	K4 III	CASS CCD	1800 G=5930	200 μ	6450Å	10ci	STD. VEL.	25K Sec background	
					ALL TO PERSEUS & WORM						

Disp #1

Date Aug 6/7.92 Observers IKKJ/Ri/Fbr (SERVICE)

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ccd9183	Focus (Comp)								
9184	Focus (Steel)								
FM00471	HD144579	16 01 30	39 25 36						
9185	Bias (4)								
9186	Comp (7300Å)							Fcbr Clear	12s
9187	HD172167	18 33 33	38 41 00	20 41 10	(7300Å)				10s
9188	——"——			20 42 30					10s
9189	——"——			20 43 31					10s
9190	Comp							Fcbr Clear	12s
9191	Comp							Fcbr Clear	12s
9192	HD187642	19 45 54	08 36 00	20 52 37	(7300Å)				20s
9193	——"——	"	"	20 54 01					20s
9194	——"——	"	"	20 55 14					20s
9195	Comp							Fcbr Clear	12s
9196 9197 9198	Flat (x3)							Teney Clear	10s

Spectr. Temp. ..... Dome Temp./Hum. 20°C/56.8% Transparency Conditions ..... CLEAR ..... 74 ....

Focus ..... 6.6.4 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

FANS ON. (30 GAIN)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
							λ=7300Å			FORMAT. 450 0 200 1024	1 1
						MID DKKR					
		V 6.66	dG8	CASS CCD	1200 α=4825	250 μ	λ=7300Å			NORMALIZATION AND SEEING TEST	
12s											
10s		V 0.04	A0V		1200 α=4825	250 μ	λ=7300Å	4ci	KK Pam		
10s		—"—	"		"	"	"	"	KK Pam	6K Sum Avg	
10s		—"—	"		"	"	"	"	KK Pam		
12s											
12s											
20s	40	V 0.77	A7V		1200 α=4825	250 μ	λ=7300Å	5ci	KK Pam		
20s	50K	"	"		"	"	"	"	KK Pam		
20s	60K	"	"		"	"	"	"	KK Pam		
12s											
10s											

NO DEKKER FOR FLATS

p#2

Date Aug 6/7-92 Observers IKK)/R.|Fbr.(SERVICE)

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc@9199	BIAS(4)(8100Å)								
9200	COMP							FeNe clear	45s
9201	HD187642	19 45 54	08 36 00	21 16 53	(8100Å)				45s
9202	——"——	"	"	21 18 56	(8100Å)				45s
9203	——"——	"	"	21 20 26	(8100Å)	1.43 E			45s
9204	COMP							FeNe clear	45s
9205	COMP							FeNe clear	45s
9206	HD172167	18 33 33	38 41 00	-	}				30s
9207	——"——	"	"	-					"
9208	——"——	"	"	-		0.17 E			"
9209	COMP								
9210	BIAS(4)								
9211	FLAT	AT HD172167 POSITION						Tung clear	14s
9212	FLAT							Tung clear	14s
9213	FLAT							Tung clear	14s

Spectr. Temp. ..... Dome Temp./Hum. 19.4°C/57.1% Transparency Conditions .... CLEAR ..... 76 ....

Focus .....6.64.....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS ON ; 30 cgain

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1200 G=5200	250 μ	λ=8100Å			450 0 200 1024	11
										(NO BINNING).	
120K		V 0.77	A7V	CASS CCD	1200 G=5200	250 μ	8100Å	5ci	KK pgm	30K Sum Avg.	
117K		"	"		"	"	"	"	KK pgm	35K Sum Avg	
106K		"	"		"	"	"	"	KK pgm		
										AIRMASS = 1.0876	
100K		V 0.04	AØV	CASS CCD	1200 G=5200	250 μ	8100Å	4ci	KK pgm	60K	
99K		"	"		"	"	"	"		60K } Σ avg above	
85K.		"	"		"	"	"	"		60K	

NO DEKKER FOR FLATS

#3

Date ... Aug 6/7-92 Observers ... [illegible]/Ri/Fbr (SERVICE)

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc#9214	BIAS (4) (8400Å)			21 49 27					
9215	COMP							FeNe Clear	8s
9216	HD172167	18 33 33	38 41 00	—	(8400Å)				20s
9217	"	"	"	—					"
9218	"	"	"	22 05 10					"
9219	COMP	"	"					FeNe Clear	8s
9220	COMP							FeNe Clear	8s
9221	HD187642	19 45 54	08 36 00	22 18 06					63s
9222	"	"	"	22 20 04					63s
9223	"	"	"	22 22 01					63s
9224	COMP							FeNe Clear	8s
9225	BIAS (4)								
9226	FLAT							Tung Clear	16s
9227	FLAT	AT HD187642 POSITION						Tung Clear	16s
9228	FLAT							Tung Clear	16s

Spectr. Te
Focus ....
Spectr. Te

Exp Mtr.

53K

140K

135K

125K

Spectr. Temp. ..... Dome Temp./Hum. 18.8°C/61.5% (2150) Transparency Conditions ... CLEAR ..... 78 .....

Focus ..... 6.64 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

FANS ON - 30 again

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1200 G=5342	250 μ	λ=8400			450 0 200 1024	1 1
										AIRMASS = 1.259	
		V 0.04	AΦV	CASS CCD	1200 G=5342	250 μ	λ=8400	4ci	KK Pgm	40K Σ AVG ABOVE BKGD.	
53K		"	"	"	"	"	"	"	KK Pgm		
		"	"	"	"	"	"	"	KK Pgm	35K.	
										GREAT SEEING!	
140K		V 0.77	A7V	CASS CCD	1200 G=5342	250 μ	λ=8400	5ci	KK Pgm	20K Σ AVG	
133K.		"	"	"	"	"	"	"	KK Pgm	50K	
133K		"	"	"	"	"	"	"	KK Pgm	50K	
				NO DEKKER FOR FLATS						} >10K	

#4

Date ... Aug. 6/7-92 ... Observers [KKS]/Ri/Fbr (SERVICE)

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
~~9228~~	~~[illegible]~~								
	NOTE: UP TO THIS POINT, THE STELLAR							FILTER	
9229	BIAS (4) (8700Å)		(FILTERS ARE ~~NOW~~ IN)						
9230	Comp							FINE Clear	15s
9231	HD187642	19 45 54	08 36 00						70s
9232	"	"	"						"
9233	"	"	"	22 54 30					"
9234	Comp							FINE Clear	15s
9235	Comp							FINE Clear	15s
9236	HD172167	18 33 33	38 41 00	23 04 15					20s
9237	"	"	"	23 05 55					20s
9238	"	"	"	23 06 59.					20s
9239	Comp							FINE Clear	15s
9240 9241 9242	FLATS x 3							Tung Clear	18s

Spectr. Temp. ..... Dome Temp./Hum. . 18.6°C/62.2% (@2230) Transparency Conditions ..... CLEAR .....

Focus ..... 6.64 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

FANS ON -30 again

80

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
HAS ~~NOT~~ BEEN IN. -Fbr.											
				CASS CCD	1200 G=5480	250 μ	λ=8700Å				
44K		V 0.77	A7 V				8700Å	Sci	KK	20K Σ avg above bkg.	
50K		"	"				"	"	KK	40K	
46K		"	"				"	"	KK	40K.	
34K		V 0.64	AØV	CASS CCD	1200 G=5480	250 μ	8700Å	4Ci	KK	23K Σ avg above bkgrnd.	
31K		"	"	"	"	"	"	4Ci	KK	26K —— " ——	
31K		"	"	"	"	"	"	4Ci	KK	27K —— " ——	
				NO DEKKER FOR FLATS							

#5

Date ... AUG 6/7-92 ... Observers [K.K.]/R./Fbr.(SERVICE)

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc@9243	Bias(4)(8400Å)								
9244	Comp							FeNe Clear	8s
9245	HD172167	18 33 33	38 41 00	23 25 08					20s
9246	"	"	"	23 26 23					"
9247	"	"	"	23 27 31					"
9248	Comp							FeNe Clear	8s
9249	Comp			23:34:24				FeNe Clear	8s
9250	HD187642	19 45 54	08 3600	23:41:06					63s
9251	"			23:43:23					68s
9252	"			23:45:29					63s
9253	Comp			23:49:29				Fe/Ne Clear	8s
9254	Flat								16s
9255	Flat	AT HD187642 Position							16s
9256	Flat								16s
9257	Bias(4)(8400Å)								

Spectr. Temp. ..... Dome Temp./Hum. 18.4°C/60.7% Transparency Conditions ..... CLEAR .....
(2310)

Focus ..... 6.64 ..... FANS ON - 30 c gain (SLIGHT HAZE) 82

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1200 a=5342	250 μ	λ=8400Å			450 0 200 .1024 1 1 ccdfast	
8s											
40K		V 0.04	AΦV		1200 a=5342	250 μ	8400Å	4ci	KK Pgm	25K Σ AVG ABOVE BKD.	
40K.		"	"		"	"	"	"	KK Pgm	24K —"—	
40K		"	"		"	"	"	"	KK Pgm	35K —"—	
8s											
8s											
45K		V 0.72	A7V		1200 a=5342	250 μ	8400Å	5ci	KK Pgm		
44K		"	"		"	"	"	"	"		
47K		"	"		"	"	"	"	"		
9s											
16s											
16s											
16s										NO DEKKER FOR FLATS } >10K.	

p #6

Date Aug. 6/7-92 Observers IKK3/RI/Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
cc9258	BIAS (4) (8100 Å)								
9259	COMP							FeNe Clear	45s
9260	HD187642	19 45 54	08 36 00	00 00 20					45s
9261	"	"	"						"
9262	"	"	"	00 04 38					"
9263	COMP							FeNe Clear	45s
9264	COMP							FeNe Clear	45s
9265	HD172167	18 33 33	38 41 00	00 12 56					30s
9266	"	"	"	00 14 41					30s
9267	"	"	"	00 16 20					
9268	COMP							FeNe Clear	45s
9269	FLAT	AT HD172167 POS'N						"	
9270	FLAT							Tung Quartz	14s
9271	FLAT							"	"
9272	BIAS (4)							"	"

Spectr. Temp. ..... Dome Temp./Hum. 17.9°C/63.2% Transparency Conditions .... SLIGHT HAZE .....

Focus .... 6.6.4 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS ON - 30 cgain

84

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				COSS CCD	1200 G=5200	250 μ	λ=8100			450 0200 1024 11 coadfmt	
										AIRMASS = 1.2542	
32K		V 0.77	A7V				8100Å	Sci	KK Pgm	90 K Sum Adu.	
32K		"	"				"		KK Pgm	28 K Sum Avg.	
32K		"	"				"		KK Pgm		
		V 0.04	A0V		1200 G=5200	250 μ	8100	Sci	KK	40 K Σ Avg above bkg	
42K		"	"		"	"	"		KK	>40 K Σ Avg above bkg.	
40K		"	"		"	"	"		KK	40 K.	
										NO DEKKER FOR FLATS	

Spectr. Te
Focus....
Spectr. Te

Date .. Aug. 6/7-92 .... Observers . IKKJ/Ri/Fbr .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr
~~9273~~	Bias(4)(7300Å)									
9274	Comp							FeAr Clear	12s	
9275	HD172167	18 33 33	38 41 00	00 28 49					12s	20K,
9276	"	"	"	00 29 52					"	20K.
9277	"	"	"	00 30 39					"	20K
9278	Comp							FeAr Clear	12s	
9279	Comp									
9280	HD187642	19 55 54	08 36 00	00 37 49					22s	20K
9281	"	"	"	00 38 58					22s	20K
9282	"	"	"	00 39 51		01 35 W			22s	20K
9283	Comp							FeAr Clear	12s	
9284	FLAT							Tung Clear	10s	
9285	FLAT	AT HD187642 Pos'n						"	"	
9286	FLAT							"	"	
9287	BIAS(4)									

Spectr. Temp. ..... Dome Temp./Hum. 17.5°C/64% Transparency Conditions ....Clear (Haze).....
(0043)

Focus .....6.6.4.....

Spectr. Temp. ..... Dome Temp./Hum. .....

FANS ON - 30 gain 86

Comparison Filter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						CASS CCD	1200 G=4825	250 μ	λ=7300Å			450 0 200 1024	11
	12s	20K.		V 0.04	AΦV		1200 G=4825	250 μ	7300Å	4ci	KK	8K Σ avg	
	"	20K.		"	"		"	"	"	"	KK		
	"	20K		"	"		"	"	"	"	KK		
	12s												
	22s	20K		V 0.77	A7V		1200 G=4825	250 μ	7300Å	5ci	KK	30K Σ avg above bkg.	
	22s	20K		"	"		"	"	"	"	KK		
	22s	20K		"	"		"	"	"	"	KK		
	12s												
	10s												
	"												
	"												

#8

Date ..Aug. 6/7..92..... Observers ...Ri./F.Br...(SERVICE)

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr
cc9288	BIAS (4)									
9289	Comp							FeAr Clear	60s	
9290	HD203156	21 15 23	+37 49 00	01 19 24		00 53W			300s	6638
9291	Comp							FeAr Clear	60s	
9292	HD203156	21 15 23	+37 49 00	01 28 15					480s	10,900
9293	Comp							Fe Ar Clear	60s	
9294	Comp							FeAr Clear	60s	
9295	HD198726	20 47 13	+27 52 30	01 44 41					339s	10 K
9296	Comp							FeAr Clear	60s	
9297	Comp							FeAr Clear	60s	
9298	HD223094	23 41 23	+28 08 54	01 58 43						10 00 Cloudy
9299	Comp							FeAr Clear	60s	
FM00 TST x,y,z,v *	GUIDER MAGNITUDE		TIME TEST ON		PLEIADES					
9300	Comp							FeAr Clear	60s	
9301	HD214975	22 36 55	+56 18 24	03 11 21		02 11W			~~2800s~~	5249
									3200s	

Spectr. Temp. ..... Dome Temp./Hum. 17.2°C/64.8% Transparency Conditions VERY. CLEAR..... 88....

Focus ..... 6.64 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

FANS ON - 90 cgain

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 G=5930	200 μ	6450Å			480 0 50 1024 41 ccdfit	
										GREAT SEEING!	
6638		V 5.8-5.9	F2	CASS CCD	1800 G=5930	200 μ	6450Å	4ci	[Rm] Pgm	TOP PRIORITY	
10,900		V 5.8 -5.9	F2	CASS CCD	1800 G=5930	200 μ	6450Å	4ci	Rm - (TOP PRIORITY) - EXPOSURE #2		20K
										DOME T=16.9°C/H=66.2%	
										AIRMASS = 1.1075	
10K		V 5.75	G0Ib	CASS CCD	1800 G=5930	200 μ	6450Å	5ci	Rm Pgm	T Vul (16K Sum Avg)	
10,100		V 7.45	K5 III	CASS CCD	1800 G=5930	200 μ	6450Å	6ci	STD. VEL	25K Σ AVG.	
										T=15.3°C Hum=74.8%	
3249		V 8.40	G0Ib	CASS CCD	1800 G=5930	200 μ	6450Å	7ci	Rm Pgm	7 Lac.	

2nd p#9

Date Aug. 6/7-92 Observers Ri/Fbr (SERVICE)

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc@9302	COMP							Fstr Clr	60s.
9303	BIAS (4)								
9304	FLAT							TUNG N=1/2	10s
9305	FLAT	AT HD214975 POSITION						TUNG N=1/2	10s
9306	FLAT							TUNG N=1/2	10s

Spectr. Temp. ..... Dome Temp./Hum. 15.6°C/72.7% Transparency Conditions CLEAR 90

Focus 6.64 (0345)

Spectr. Temp. ..... Dome Temp./Hum. 15.3°C/74.8% FANS ON -90 again (0354)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 G=5930	200 μ	λ=6450Å			480 0 50 1024 4 1	

ALL TO PERSEUS AND WORM & EXABYTE KK

For.

pg 1

Date Aug 10/11 '92 Observers Hlw/KK/Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce 4762	Bias (4)								
4763	Comp								
4764	Comp							ThAr	10sec
4765	HD 8890	01 22 36	+88:46	03:46:12	03:56:12				600sec
4766	Comp							ThAr	10s
4767	HD 8890	01 22 36	+88 46	04:01:27					660se
4768	Comp							ThAr	10sec
4769	Bas (4)								
4770	Flat (Aug a)								
4771								ThAr	10sec
4772									"

Spectr. Te
Focus....
Spectr. Te

Exp Mtr

Spectr. Temp. ..... Dome Temp./Hum. 18.4°C / 66.2% Transparency Conditions ..... Scattered Clouds. 92

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS ON.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Echelle CCD	.4540 600 l/mm	60μ width 600μ height		1ci		Dome Temp = 18.4°C	
								3ci		CCD warmed to −2°C, so second top up done.	
								3ci			
nil		V=2.5	F8					4ci		Starting time is wrong in header, right in logbook	
								3ci		(weak, due to inability to find slit,) Focus=2248	
								4ci			
										Tried different focus (Guider camera was moved) Tel. Focus = 2142	
										Fmt: 00 128 1024 8 1	
										Temp: 19.8°C	

pg 1

Date Aug 11/12 '93 Tue/Wed Observers Hlw/Fbr [KK]

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
ce4773	Bias (4)									
4774	Comp							ThAr.	10 sec	
4775	HD144576	16 01 30	39 25 36	20:00:43			+39		1203s	85
4776	Comp							"	10s	
4777	Comp							"	10s	
4778	HD137909	15 23 42	29 27 00	20:29:00		~2:30 W	+29		1535s	712
4779	Comp							"	10s.	
4780	HD137909	15 23 42	29 27 00	20:57:19			+29		1807s	1709
4781	Comp							"	10s	
4782	Comp							"	10s	
4783	Bias(4)									
4784	HD8890	01 22 36	88 46 00	21:43:01		7:40 E	+89		520s	2334
4785	Comp							"	10s	
4786	HD8890	01 22 36	88 46 00	21:54:48		7:20 E	+89		580s	2727
4787	Comp							"	10s	
4788	Flat(9)							Tung	15s	

Spectr. Temp. ..... Dome Temp./Hum. +17.0°C / 66.9% Transparency Conditions ..... Clear ..... 94 ....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS OFF Format: 0 0 256 1024 41

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	2"			Echelle CCD	.4540 600ℓ/mm	400μ=height, .225 460μ=width		1ci .277		CLAMBDA = 4480Å Focus = 0.2535	
								3ci			
85		V= 6.66	G8V					4ci	Std. Velocity	-60 +/- 0.3 km/sec. Start time in header is wrong	
								3ci			
								3ci			
1492		V= 2.6	K3 II					5ci	KK		
								3ci			
1709		V= 2.6	K3 II					6ci	KK		
								3ci			
								3ci			
								1ci			
2084		V= 2.5	F8Ib					7ci	KK		
342 c.								3ci			
2727		V= 2.5	F8Ib					4ci	KK	Alt to Perseus & Worm dec motor brake.	
								3ci			
						800μ=height .185		1ci		Avg of 9 Flats.	

pg #1 [redacted], Aug 13/14 92

Date [redacted] Observers Hlw/[KK]/Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
ce ϕ 4789	Bias (4)									
4790	Comp							ThAr	10 sec	
4791	HD8890	01 22 36	88 46 00	21:52:14		7:20 E	+89		720 sec	2400
4792	Comp							"	10 s	
4793	HD 8890	01 22 36	88 46 00	22:06:27		7:04	+89		770 s	2705
4794	Comp							"	10 s	
4795	Comp							"	"	
4796	HD137909	15 23 42	29 27 00	22:29:52		4:38 W	+29		1320 s	1320
4797	Comp							Ther	10 s	
4798	HD137909	15 23 42	29 27 00	22 53 54		5:08 W	+29		1700 s	1380
4799	Comp							"	10 s	
4800	Bias (4)									
4801	Comp							"	10 s	
4802	HD204867	21 26 18	-06 01 00	23:32:52		0:15 E	-6		1691	2002
4803	Comp							"	10 s	
4804	Comp							"	"	

Spectr. Temp. ..... Dome Temp./Hum. 13.8°C/82.0% Transparency Conditions ..... Scattered Clouds to clear. 96

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

FORMAT: 0 0 256 1024 4 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Echelle CCD	.4540 600ℓ/mm	400μ = .225 width 60μ = .277 height		1ci		CLAMBDA = 4480 FOCUS = .2535	
								3ci		Focus test done, good.	
2400	2'	V=2.5	F8IL						KK		
2705		V=2.5	F8IL						KK		
1320		V= 3.66	Fp						KK	Hum = 83.2 @ 22:32	
1380		V= 3.66	Fp						KK	Setting over Richmond Hill.	
2002		V= 2.91	GOIb						Std. Vel.	Lot's of Moonlight.	

pg 2 Thur Friday.

Date Aug 13/14 92 Observers HIW/Fbr/[KK]

Emulsion Batches: .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
Ceφ4805	HD183912	19 26 41	27 45 00	00:10:24		2:08 W	+28		860s	2.5
4806	Comp							Thtr	10s	
4807	Comp							"	"	
4808	HD186791	19 41 30	10 22 00	00:31:48					670s	2.70
4809	Comp							"	10s	
4810	Comp							"	"	
4811	HD202109	21 08 41	29 49 00	00:56:20		1:17 W	+30		1208s	2.30
4812	Comp for both ½							"	10s	
4813	HD215182	22 38 19	29 42 00	01:21:58		0:10 W	+30		1000s	2.25
4814	Comp							"	10s	
4815	Comp							"	10s	
4816	HD8890	01 22 36	88 46 00	01:50:33		3:22 E	+89		593	2.30
4817	Comp							"	10s	
4818	HD8890	01 22 36	81 46 00	02:03:05			+89		627.	2.00
4819	Comp.							"	10s	
4820	Comp							"	"	

Spectr. Temp. ..... Dome Temp./Hum. 12.0°C / 83.1% Transparency Conditions ..... Clear .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

TRNS OFF - 90cgain
CCD Temp = -100.6°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2256	2"	V= 3.24	K5 II + B?	Echelle CCD					KK		
2380		V= 2.6	K3 II						KK & Std. Vel.	Two, two two programs in one!!	
2130		V= 3.2	G8 II						KK		
										Taken at posn of HD215182	
2125		V= 3.0	G8 II + F?						KK		
2430		V= 2.5	F8 Ib						KK		
2800		V= 2.5	F8 Ib						KK		
									I		

pg 3

Date Aug. 13/14 92 Observers Hlw/Fbr/[KK]

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
4821	HD 3712	00 34 48	55 59 00	2:20:52		0:57 E	+56	[illegible]	44s
4822	Comp							ThAr	10s
4823	Comp							"	"
4824	HD 34029	05 09 18	45 54 00	02:37:34		5:23 E	+46		75s
4825	Comp							"	10s
4826	HD 34029	05 09 18	45 54 00	02:40 19		5:19 E	+46		109s
4827	Comp							"	10s
4828	Bias (4)								
4829	FLAT							Tung	25s
4830	Flat							Tung	25s
4831	Flat							Tung	25s

Spectr. Temp. ..... Dome Temp./Hum. 11.5°C / 85.3% Transparency Conditions Clear as glass

Focus 160

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2240		V= 2.23	K0IIIa	Echelle CCD					Std. Vel.		
2000		V= 0.08	G6III +G2III						KK		
3100		V= 0.08	G6III +G2III						KK		
										max ADU 14748	
										ditto	
										ditto	
				ALL TO PERSEUS; WORM						Close & Too Humid	

Pg 1

Fri Sat

Date Aug 14/15 92 Observers HIW/[KKJ]/Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	
ce∅4832	Bias (4)									
4833	Comp							ThAr	10s	
4834	HD8890	01 22 36	88 46 00	20:15:46		9 E	+89		385	2315
4835	Comp							"	10s	
4836	HD8890	01 22 36	88 46 00	20:25:05		8:45 E	+89		645	2560
4837	Comp							"	10s	
4838	Comp							"	"	
4839	HD137909	15 23 42	29 27 00	21:27:25			+29		1200s	1516
4840	Comp							"	10s	
4841	HD137909	15 23 42	29 27 00	21:50:37			+29		1200s	1870
4842	Comp							"	10s	
4843	Bias (4)									
4844	Comp							"	"	
4845	HD204867	21 26 18	-06 01 00	23:13:29			-6		1600	413
4846	Comp									
4847	Bias (4)									

Spectr. Temp. ..... Dome Temp./Hum. 16.6°C/64.8% Transparency Conditions ... PARTLY CLOUDY ... TTZ

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

FANS ON ccdtap = -100.7°C

Format = 0 0 256 1024 4 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	4"			Echelle CCD	4540 600 l/mm	400μ = .225 Height 60μ = .277 Height				central λ = 4480 Focus = .2535	
2315		V= 2.5	F8Ib						KK	Polaris	
2560		V= 2.5	F8Ib						KK	Polaris	
										Focus Test done, it looks fine.	
										T = 14.9°C Hum = 68.5% Airmass = 1.3140	
1516		V= 3.66	F_p					βCBr	KK	Accidentally wrote over 1st exposure with comp. Hlw.	
1370		V= 3.66	F_p					βCBr	KK	T = 14.3°C Hum = 70.4%	
1483		V= 2.91	GOIb						Std. Vel.	Small mass of cloud passed overhead, then it cleared. Hum = 70.9%	

Pg 2

Date Aug. 14/15 92 (Fri. Sat) Observers Hlw/[KK]/Fbr

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
4848	Comp							ThAr	10s	
4849	HD222368	23 34 48	05 05 00	23:48:30		1:52 E	+5:30		2512s	9/64
4850	Comp.							"	10s	391
4851	Comp							"	"	
4852	HD8890	01 22 36	88 46 00	00:39:16		4:30 E	+89		500s	3-17
4853	Comp.							"	10s	
4854	HD8890	01 22 36	88 46 00	00:49:14		4:20 E	+89		520s	2300
4855	Comp							"	10s	
4856	Comp							"	"	
4857	HD3712	00 34 48	55 59 00	01:04:22		2:10 E	+56.5		402	2500
4858	Comp							"	10s	
4859	Bias (4)									
4860	Comp							"	"	
4861	HD186791	19 41 30	10 22 00	01:21:08		3.05 W	+11		830s	3-30
4862	Comp							"	10s	
4863	Comp							"	"	

Spectr. Temp. ..... Dome Temp./Hum. 13.8°C/71.6% Transparency Conditions ... Scattered Clouds ...

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	3-4"	[illegible]	[illegible]	Echelle CCD							
964		V= 4.83	F7 V						Std. Vel.	Hum= 72.4% @ 00:07	
391										74.9% @ 00:40	
2417		V= 2.5	F8 Ib						KK	Polaris	
2300		V= 2.5	F8 Ib						KK	Polaris	
										75.6% @ 01:00	
										76.4% @ 01:10	
2500		V= 2.23	K0 IIIa						Std. Vel	77.2% @ 01:20	
										Dome Temp = 13.4°C	
2420		V =2.6	K3 II						KK & Std. Vel	γ Aql	

pg 3

Date Aug 14 (Fri) / 15 (Sat) 92 Observers HIW/[KK]/Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
4864	HD183912	19 26 41	27 45 00	01:39:31		3:40 W	+28		978s	2050
4865	Comp							ThAr	10s	
4866	Comp							"	"	
4867	HD202109	21 08 41	29 49 00	02:00:09		2:20 W	+30		900s	2300
4868	Comp							"	10s	
4869	Comp							"	"	
4870	HD215182	22 38 19	29 42 00	02:19:52			+30		600s	2100
4871	Comp							"	10s	
4872	Comp							"	"	
4873	HD209790	22 00 54	64 08 00	02:36:20		2:10 W	+64		1200s	870
4874	Comp								10s	
4875	Comp							"	10s	
4876	HD34029	05 09 18	45 54 00	03:04:44		4:50 E	+46		74s	3500
4877	Comp							"	10s	
4878	HD34029	05 09 18	45 54 00	03:08:50		4:50 E	+46		81s	3500
4879	Comp							"	10s	

Spectr. Temp. ..... Dome Temp./Hum. 13.1°C / 78.0% Transparency Conditions .... clear .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2050	5"	V =3.24	K5 II +B?	Echelle CCD					KK	Albirio A (Brighter one)	
2300		V =3.2	G8 II						KK	3 Cyg	
2100		V =3.0	G8 II +F?						KK	η Peg	
870		B= 4.63	A3M						KK	Brighter of pair	
2500		V= 0.08	G6 III +G2 III						KK	Capella	
2500s		V= 0.08	G6 III +G2 III						KK	Capella	

pg 4

Date Aug 14/15 92 (Fri Sat) Observers HIW/[KK]/Fbr

Emulsion Batches: .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
4880	Bias (4)									
4881	COMP							ThAr	10s	
4882	HD 8890	01 22 36	88 46 00	03:16:25		1:53 E	+89		500s	2276
4883	Comp							"	10s	
4884	HD 8890	01 22 36	88 46 00	03:26:06		1:45 E	+89		520s	2330
4885	Comp							"	10s	
4886	Flat							Tung	25s	
4887	"						—	"	"	
4888	"							"	"	

Spectr. Temp. ..... Dome Temp./Hum. 12.8°C/77.2% Transparency Conditions ..... clear ..... 108..

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	4"			Echelle CCD							
2276		V=2.5	F81b							Polaris	
										← Check headers for exp. time.	
2320		V=2.5	F81b							Polaris	
						800μ	height = .185				

Date Aug 15/16 92 Observers HIW/[KK]/Fh-

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ceφ4889	Comp							ThAr	10s
ceφ4890	HD8890	01 22 36	88 46 00	23:15:38		5:45E	+89		600s
4891	Comp							"	10s
4892	HD8890	01 22 36	88 46 00	23:27:06					422s
4893	Comp → 4894 : Bias (4)							"	10s
4895	HD8890	01 22 36	88 46 00	23:37:18					689s
4896	Comp							"	10s
4897	Flat ×3							Tung	35s

Spectr. Temp. ..... Dome Temp./Hum. 16.3°C / 74.0% Transparency Conditions ..... Cloudy ..... 110 ...

Focus ..... FANS OFF

Spectr. Temp. ..... Dome Temp./Hum. ..... FMT: 0 0 256 1024 4 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2095		V= 2.5	F8 1b	Echelle CCD	.4540 600 ℓ/mm	400μ = .225 height 60μ = .277 width				CLAMBDA = 4480 Å Focus = .2535 some clouds passed over during 1st exposure	
2357											
1068										Clouded out	

pg 1 Thurs. Friday

Date Aug. 20/21 '92 Observers HIW/[KK]/Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9307	Focus Test (Comp Posn')								
9308	Focus Test (Stellar Posn')			19:30				FeNe	20s
FM00472 ABCDEF	HD171232	18 28 30	25 25 00	19:58		0:51E	+25:27		
9309	Bias (4)								
9310	Comp							FeNe	20s
9311	HD171232	18 28 30	25 25 00	20:04:12	20:14:12				600s
9312	Comp							"	20s
9313	Comp							"	"
9314	HD161096	17 38 30	04 37 00	20:30:45		0:30 W			39s
9315	Comp							"	20s
9316	Bias (4)								
9317	Comp							"	"
9318	AC +62 26749	17 34 30	61 45 00	20:49:05	21:19:05	1 W	+62		1800s
9319	Comp								20s
9320	Comp							"	20s
9321	BD +71 851	17 40 06	71 22 00	21:25:55	21:45:55	1:30W	+71		1200
9322	Comp							"	20s

Spectr. Temp. ..... Dome Temp./Hum. 59.9%/+17.6°C Transparency Conditions ..... Clear ..... 1/2 .....

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS ON

480 0 50 1024 4 1 ccd/int

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CLAMBDA	P.H.	Program	Remarks	Quality
				CASS CCD	1800ℓ/mm G=4990	310μ	5140Å	1ci 2c.			
	~2"	V= 7.73	G8 III							Seeing test.	
								1ci			
21092		[illegible]	[illegible]					3ci	[illegible]		
2782		V= 7.73	G8 III					4ci	Std Vel.		
								3ci			
								3ci			
13000		V =2.77	K2 III					5ci	Std Vel.		
1380		V =9.95	M1 Ve					6ci	KK		
1592		V= 9.1	K4					7ci	KK	Faint companion noted to SW ~ 8" (too low to take spectrum)	

pg 2

Date Aug 20/Thu 21/Fri 92 Observers Hlw/[KK]/Fbr

Emulsion Batches: .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9323,4,5	Flat ×3							Tung	20s
9326	BIAS(4)								
9327	Comp						½ Aperture	FeNe	20s
9328	BD+76 785	20 13 54	76 55 00	21:08:05		0	+77		1400s
9329	Comp								20
9330	Comp								20
9331	AC+65 6955	20 29 00	65 06 00	21:40:58	22:40:58	0	+65		3600s
9332	Comp								20
9333	Comp								20
9334	LHS 494	20 31 43	61 23 48	23:54:01		2 W	+61		3600s
9335	Comp								20
9336	Comp								20
9337	LHS 3693	21 31 24	51 04 49	01:05:29		2 W	+51		1544
9338	Comp								20
9,40,41	FLAT ×3								
342	BIAS(4)								

Spectr. Temp. ..... Dome Temp./Hum. +15.3°C / +69.3% Transparency Conditions ..... Clear .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD				7, 8, 9 ci			
								1 ci			
								3 ci		Shutter at ½ Aperature	
1946	~3"	V =9.3	M0					8 ci		~1400 Sum ADU Above Bkg.	
1689		V =10.4	M3					9 ci		~1350 Sum Ag ADU above bkgd	
441		V =12.5	m					8 ci		some wispy high clouds drifted by ~200 s ADU A B	
150		V =11.8	M3.5					7 ci		71.9% @ 01:14 73.5% @ 01:18	
										Clouded in	

pg 1

Date Aug 21/22 92 (Fri / Sat) Observers HIW/Fbr/Bhm

Emulsion Batches: .....

Spectr. Temp ..... Focus ..... Spectr Temp .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp	Exp Mir
~~9343~~	Bias (4)									
9344	Comp							FeNe clear	20s	
9345	HD171232	18 28 30	25 25 00	20:06:12		0:30	+25		400s	2920
9346	Comp								20s	
9347	Comp								20s	
9348	HD161096	17 38 30	04 37 00	20:22:05					10s	5200
9349	Comp								20s	
9350	Comp								20s	
9351	BD+71° 851 (*)	17 40 06	71 22 00	20:42:32			+71		3561s	267
9352	Comp								20s	
9353	Comp (Bias)								20s	
9354	LHS 3693	21:31:24	51:04:49	22:03:43		0:44 E			3660s	690
9355	Comp								20s	
9356/9357	Comp								20s	
9358	BD+76° 785	20:13:54	76:55:00	23:20:46	1:15 W	+77			1431s	2163
9359	Comp								20s	

Spectr. Temp. ..... Dome Temp./Hum. 63.8%/19.4°C (2000) Transparency Conditions ..... Clear 116

Focus ..... 6.7a .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Fans OFF -90cgain

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CLAMBDA	P.H.	Program	Remarks	Quality
				CASS CCD	1800 ℓ/mm G = 4990	310μ triple slit	5140Å			480 0 50 1024 41	
2920	~2"	V = 7.73	G8III						Std. Vel	less time, more counts than yesterday.	
5200		V = 2.77	K2III						Std. Vel	Hum = 68.8% @ 20:44 70.1% @ 20:52 71.7% @ 21:01 72.4% @ 21:10 73.5% @ 21:18	
267		?	?					6ci	KK	~~*~~ Faint Companion! - tracking to right-hand side of slit to avoid light of brighter star. - note - Brighter Star light may slightly penetrate the right slit: 	
690		V = 11.8	M3.5						KK		
2160		V = 9.3	M0						KK	74.3 @ 21:26 75.1 @ 21:45 75.6 @ 22:01 76. @ 22:28	

11X pg 2.

Date Aug 21/22 92 Observers Hlw/Fbr/Bhrm/[KK]

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9360 9361, 9362	Flats x3						½ ap.	Tung	15s
9363	Comp							FeNe clear	20s
9364	BD+71 851	17 40 06	71 22 00	00:17:44		4 56 W			840s
9365	Comp							FeNe clear	20s
9366	Bias (4)								
9367	Comp								20s
9368	Ross 226	22 50 30	60 28 00	01:42:32		1:30 W	+61		3630s
9369	Comp								20s
9370, 1, 2	Flats x3							Tung ½	10s
9373	Bias								
9374	Comp							FeNe Clear	20s
9375	Ross 226	22 50 30	60 28 00	02:53:57		2:30 W	+61		3600
9376	Comp.								

Spectr. Temp. ..... Dome Temp./Hum. 16.9°c/74.1% Transparency Conditions ..... Clear .....

Focus .....6.70.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2500		V=9.1	K4						KK	6K Σ! avg.	
340c		V=13.2	M4						KK		
350c		V=13.2	M4						KK ←	Forgot to import name & coordinates : header says LHS1176 J.H. 25/07/97	

Edited ID in Header 9605 Tn

1.9 pg1 ~~Sat Sun~~

Date Aug 22/23 92 Observers HIW/FBr

Emulsion Batches: .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc∅9377	Bias (4)								
9378	Comp							FeNe	20s
9379	HD186791	19:41:30	10 22 00	23 08 25					8s
9380	Comp								20
9381	Comp								20
9382	AC+75 8347	21 57 36	75 08 00	23 32 21		0:23 W	+75		3600s
9383	Bias (4)								-
9384	Comp (in LHS 535 posn')								20
9385	LHS 535	23:03 42	68 07 32	00:49:47	01:49:47		+68		3600s
9386	Comp								20
9387	LHS 535	23 03 42	68 07 32	01:52:47	02:52:47	1:30 W	+68		3600s
9388	Comp								20s
9389	Comp								20s
9390	LHS 1176	00 55 11	60 49 52	03:17:13			+61		3000s
9391	Comp								
9392 - 9400	FEST x9							TiNg A=1/2	1TS

Spectr. Te
Focus...
Spectr. Te
Avg Mtr
2500
771
+07c
+30c
+64c

Spectr. Temp. ..... Dome Temp./Hum. 17.8°C / 62.2% Transparency Conditions ..... Clear Clear Clear (12)

Focus ..... 6.70 ..... (Arora Borealis to North and above)

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=4990	3				Hum= 64% @ 23:39	
										69.3% @ 00:48	
2500	~3"	V =2.72	K3II						Std. Vel	Hum = 75.9% @ 0200	
1771		V= 10.5	M0						KK		
										Telescope wasn't moved much, perhaps comp can be used for AC+75 8347 as well	
407c		V =12.45	m?						KK	Hum = 79.9% @ 0245	
										Hum = 83.7% @ 0315	
~400c	~4"	V =12.45	m?						KK		
1064c	~5"?	V =10.8	M2						KK	Seeing is in toilet	

21 4599

Date Aug. 23/24 1992 Observers Hdy / Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9401 -9404	BIAS(1)			19 03 11					
9405 -9408	BIAS(1)			19 06 20					
9409	BIAS(4)			19 09 01					
9410	BIAS(4)			19 10 32					
9411	BIAS(4)			19 11 19					
9412	BIAS(1)			19 12 16					
9413	BIAS(1)			19 13 05					
9414	DARK			19 15 28					
9415	BIAS(1)			19 27 37					
9416	BIAS(4)								
9417	Fows (Comp)	NOT AT	5880Å						
9418	Fows (Stel).								
9419	BIAS (4)								
9420	Comp			22 50 13				FeAr Lamp	20s
9421	HD 17[illegible]4	19 00 49	13 43 00	[illegible]		1 49 W		594	[illegible]
9422	Comp							FeAr Lamp	20s

Spectr. Temp. ..... Dome Temp./Hum. 21°C / 71.9% Transparency Conditions ..... HAZE .....

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 480 050 1024 4 1 FANS OFF!

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 5530 G=~~4880~~	200μ NO DIKR	λ=5880		Hdy	5 sec - pause between each	
										NO PAUSE BETWEEN EACH	
										COSMIC RAY	
										2 COSMIC RAYS	
										LIGHTS ON	
										Hum: 74.8 / T=20.7°C (2125)	
										75.6 % @ 2131	
										81.3 % @ 2130	
										} FOCUS TEST NOT IN REGION BUT O.K.	
~~20K~~ 20K.		V 2.99	AOII		G=5530			4ci	TELLURIC STD	No TRAILING	
										Hum = 88.6%	

Date . Aug 23/24/92 Observers . Hdy/Fbr

Emulsion Batches: .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9423	HO177724	19 00 49	13 43 00	23 03 50		W		25 Cs	
9424	Comp							FeAr Clear	20s
9425	Flat							Tung n=1/2	15s
9426	Flat							"	15s
9427	Flat							"	15s
9428	Comp							FeAr Clear	20s
9429	Bias (4)								
9430	HO197433	20 38 36	75 14	23 33 32					400s
9431	"			23 40 29					"
9432	"			23 47 27					"
9433	"			23 54 25					"
9434	"			00 01 22					"
9435	"			00 08 20					"
9436	"			00 15 17					"
9437	"			00 22 15					"

Spectr. Te
Focus....
Spectr. Te

Exp Mtr	
20K	
2.9	
4.7	
6.0	
8.0	
10.0	
13.0	
17.0	

Spectr. Temp. ..... Dome Temp./Hum. T=19.1°C/87% Transparency Conditions ... VERY HAZY AND HUMID

Focus .....6.70.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20K	3"-4"	V 2.99	AO II	CASS CCD	1800 G=[redacted]5580	200 μ	λ=5880	4ci	TEMERIC STD	NO TRAILING	
}	SUM OF 2									USE SSTAR 8m. BAT.	
819										DEFINITE WAVES OF HAZE.	
447											
520											
450											
300											
280											
300											

125

Date Aug. 23/24/92 Observers Hdy/Flor

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
~~9438~~	Comp							FeAr Lamp	20s
9439	Flat							TUNG A=1/2	15s
9440	Bias (4)								
9441	Comp (after roll to W. side)								
9442	HD197433	20 38 36	75 14	00 41 07					400s
9443	"			00 48 05					"
9444	"			00 55 03					"
9445	"			01 02 01					"
9446	"			01 08 00					"
9447	"			01 15 56					"
9448	"			01 22 54 [illegible]					"
9449	"			01 29 51					"
9450	Flat							TUNG A=1/2	15s
9451	Comp							FeAr Lamp	20s
9452	Bias (4)								

CHECK HEADER

Spectr. Te
Focus....
Spectr. Te

Exp Mtr.	
	411
	480
	191
	350
	619
	394
	341
	300

Spectr. Temp. ..... Dome Temp./Hum. 18.6°C/88.4% Transparency Conditions ..... QUITE HAZY ..... 12.

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
										12 K MAX	
										(MOVE TO E. SIDE	
										OF PIER)	
411									Hdy		
480											
191											
350											
639											
294										BAD SEEING. STAR	
341										MAY NOT BE CENTRED	
300										ON SLIT.	

1208 4

Date .. Aug 23/24.92. Observers .... Hdy. Fbr.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9453	HD197433	20 38 36	+75 14	01 43 16					400s
9454	"			01 50 14					"
9455	"			01 57 12					"
9456	"	CHECK		02 04 10					"
9457	"	HEADER		02 11 08					"
9458	"			02 18 06					"
9459	"			02 25 53					"
9460	"			02 32 51					"
9461	COMP							Fe,Jr Clear	20s
9462	FLAT							Tung n=1/2	15s
9463	BIAS(4)								
9464	COMP (AFTER BREAK)			03 17 41				Fe,Jr Clear	20s
9465	FLAT							Tung n=1/2	15s
9466	HD197433	20 38 36	75 14	03 21 01					400s
9467	"			03 27 58		4 52 W			"

Spectr. Temp. ..... Dome Temp./Hum. 18.5/87.2 (0140) Transparency Conditions ..... HAZE 1.58
Focus ..... 6.70 ..... VERY HUMID
Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
600					18000 α 5530		λ=5880		Hdy	AIRMASS = 1.2633	
300	CLOUD				5530					THROUGH CLOUD.	
140											
480										HUM 87.2 - DOME WET.	
590											
345											
540											
625											
500										BACK FROM 20min break.	
490											

1905

Date ..Aug. 23/24.-92. Observers ....Hdy./Fbr.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9468	HD 197433	20 38 36	75 14	03 34 56					400s
9469	"			03 41 54					"
9470	"			03 48 52					"
9471	"			03 55 50					"
9472	"			04 02 47					"
9473	"			04 09 45					"
9474	FLAT							Tung A-½	15s
9475	BIAS(4)								
9476	COMP			04 19				Fbr clear	20s

Spectr. Ter
Focus....
Spectr. Ter

Exp Mtr
445
180
445
215
180

Spectr. Temp. ..... Dome Temp./Hum. 18.5°C / 84.5% Transparency Conditions .... HAZE ..... 130..
(0330)

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

FANS OFF - 90 cgain

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
225 ~~300~~	4"			CASS CCD	1800 λ=5530		λ=5880		Hdy	SOME CLOUD.	
188				↓	↓		↓		↓	TERRIBLE SEEING.	
370											
445										AIRMASS = 1.4008	
215											
180										LIGHT CLOUDS	
										16K.	
				↓	↓		↓				
					ALL	TO	PERSEUS	AND	WORM (FBT)		

~~2 [illegible] 38 pcbs~~

Date Aug 24/25 -92 Observers Hdg (24") / Fbs

Emulsion Batches: .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
9477	Focus (Comp)								
9478	Focus (Stel)								
9479	Bias (4)								
9480	Dark (600s)			20 40 59		0 8 16 W			
9481	Bias (4)								
9482	Comp							FcAr Clear	90s
9483	HD177724	19 00 49	13 43	21 29 04					13 1/2s
9484	HD177724	"	"	21 32 17		0 26 W			16 1/2s
9485	Comp							FcAr Clear	90s
9486	Flat							TUNG A = 1/2	10s
9487	Flat							TUNG A = 1/2	10s
9488	Flat							TUNG A = 1/2	10s
9489	Bias (4)								
	(MOVE TO HD197433)								

Spectr. Ten
Focus.....
Spectr. Ten

Exc Mtr

20K
North

20K

Spectr. Temp. ..... Dome Temp./Hum. 22.6°C/81.6% Transparency Conditions ... OVERCAST 13.5

Focus ..... 6.6.4 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... NORMALIZE ON HD171232

CCD Temp = -101.8°C FANS ON!

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 α=6020	250 μ	λ=6563			480 0 50 1024 4	Loaded
										90 again	
		V 2.99	AO V								
20K								4C2	TELLURIC	TRAILING ON	
20K									"	TRAILING ON	
										} > 14K.	

3rd pg 2

Date Aug 24/25 -92 Observers Hdy (24") / Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
9490	Comp (@ HD197433)							Fe/Sr Clear	90s	
9491	Flat									
9492	HD197433	20 38 36	75 14	22 01 23					400s	345
9493	"			22 08 20					"	1000
9494	"			22 15 18					"	970
9495	"			22 22 15					"	137
9496	"			22 29 13					"	158
9497	"			22 36 11					"	136
9498	"			22 43 09					"	1200
9499	"			22 50 06					"	1200
9500	Comp							Fe/Sr Clear	90s	
9501	Flat							Tung n=½	10s	
9502	Bias (4)									
9503	HD197433	20 38 36	75 14	23 10 22		0° 38 W			400s	1340
9504	"			23 17 20					"	1400

Spectr. Temp. ..... Dome Temp./Hum. 22.3°C/82.8% Transparency Conditions ... HAZE ..... 134.

Focus ..... 6.64 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... Fans on!

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				COSS CCD	1800 G=6020	250 μ					
645								6ci	Hdy	Use SSTAR8M.bat.	
1000									"	HUM=84.5% T=22.2°C	
970									"		
1137									"		
1158									"		
1266									"		
1300	2"								"		
1200									"		
										HUM=85.6 T=22.0°C	
1320	3"									Airmass=1.1772	
1400											

Page 3

Date ..Aug. 24/25-92.... Observers ...Hdy. / Fbr.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
9505	HD197433	20 38 36	75 14	23 24 18					400s	1400
9506	"	"	"	23 31 16					"	1450
9507	"	"	"	23 38 14					"	1500
9508	"	"	"	2345 12					"	1450
9509	"	"	"	23 52 09					"	1500
9510	"	"	"	23 59 07					"	1533
9511	Comp							FCAr Clear	90s	
9512	Flat							TUNG A=1/2	10s	
9513	Bias (4)									
9514	HD197433	20 38 36	75 14	00 14 04						1460
9515	"	"	"	00 21 02						1500
9516	"	"	"	00 28 00						1550
9517	"	"	"	00 34 57						1600
9518	"	"	"							1650
9519	"	"	"	00 43 53						1700

Spectr. Temp. ..... Dome Temp./Hum. 21.9°C / 87% Transparency Conditions ... Very Hazy & Humid ...

Focus ..... 6.64 ..... (2322) 136

Spectr. Temp. ..... Dome Temp./Hum. ..... Fans ON

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1400				CASS CCD	1800 C:6020	250 μ	λ:6563		Hdy	Rather Humid !	
1450											
1400											
1400											
1500										Hum = 87.8% / T = 21.6C Airmass: 1.1913	
1333											
1160								Tci	Hdy		
1000											
980										T = 21.5 / Hum: 88.6% (00:28) Airmass: 1.2036	
800										Cloud	
890										H = 90.2% (00:53)	
800											

13xP4

Date ... AUG. 24/25. 92. Observers ... Hdx / Fbr .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9520	HD197433	20 38 36	75 14	00 55 51					400s
9521	"	"	"	01 02 49		2 29 W			"
~~9522~~	~~Comp (Dbl Flat)~~								
	FLAT								
~~9523~~	~~Bias (4)~~								
9522	Comp							Fe/Ar Cu	90s.
9523	FLAT								

Spectr. Te
Focus ....
Spectr. Te

Exp Mtr
821
610

Spectr. Temp. ..... Dome Temp./Hum. 21.2°C/90.2% Transparency Conditions ....HAZE & HUMID.....

Focus .....6.64..... (0058 138

Spectr. Temp. ..... Dome Temp./Hum. ..... Fans ON

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
821				CASS CCD	1800 α=6020	250 μ	λ=6563		Hdy	H_α	
690										Hum @ 0110 = 91.1%	
										LOST SPEC. CONTROLLER	
										CLOSE => HUMIDITY AND COMPUTER PROBS	

39#1

Date ... Aug. 25/26-92. Observers ... Hdy. (24") / Fbr ...

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9524	Focus (Comp)								
9525	Focus (Steel)								
9526	Dark								
9527	Bias (4)								
9528	~~Comp~~ Bias(4)							Fe Ar Clear	35s
9529	~~Flat~~ Comp							↓	↓
9530	Flat							Tung. Δ = ½	10s
9531	H0177224	19 00 19	13 43 00	21 31 08		0 33 W			359
9532	"	"	"	21 37 52					
9533	Comp							Fe Ar Clear	35s
9534	Flat								
9535	Flat								
9536	Flat								
9537	Comp							Fe Ar Clear	35s
9538	Bias (4)								

Spectr. Temp. ..... Dome Temp./Hum. 23.7°C/82.2% Transparency Conditions ..... HAZE 140

Focus ..... 6.60 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS OFF - NO SEEING TEST

90 cgain

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD.	1800 G=5530	250 μ			λ=5880	480 0 50 1024 4 1	coadfint
										FAIRCHILD CAMERA IN	
										HUM=87.2% T=23.1°C	
20 K		V 2.99	AO IV						TELLURIC	POOR SEEING	
									TELLURIC	THIN CLOUD?	
										H=89.3% T=22.7°C AIRMASS: 1.1733	

14" #2

Date ... Aug. 25/26.-97. Observers ... Hdy. (24") / Fbr.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr
9539	HD197433	20 38 36	75 14	22 14 50					400s	475
9540	"	"	"	22 21 48					"	440
9541	"	"	"	22 28 45					"	537
9542	"	"	"	22 35 43					"	610
9543	"	"	"	22 42 40					"	480
9544	"	"	"	22 49 38					"	467
9545	"	"	"	22 56 36					"	545
9546	"	"	"	23 03 34					"	540
9547	Comp							Rear CC	35s	
9548	Flat							TUNG A=1/2	10s	
9549	Bias(4)									
9550	HD197433	20 38 36	75 14	23 15 47					400s	430
9551	"	"	"	23 22 44					"	540
9552	"	"	"	23 29 42					"	515
9553	"	"	"	23 36 40					"	515
9554	"	"	"	23 43 37					"	490

Spectr. Temp. ..... Dome Temp./Hum. 22.72/89.5 (2211) Transparency Conditions ... V.E.R.Y ... HAZY ... HUMID

Focus ..... 6.60 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

FANS OFF - NO NORMALIZATION! 142

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
415				ons ccd	1800 c=5930	250 μ	λ=5880 Å		Hdy	AWFUL SEEING	
410											
577											
430											
480											
467										AIRMASS = 1.1760 T = 22.3°C / HUM = 91.39%	
545											
540										(23 32) T = 22°C / H = 91.99%	
										AIRMASS = 1.832	
										MAY BE MOISTURE ON SECONDARY MIRROR	
480									Hdy		
520										POSSIBLY THIN CLOUD?	
520											
520										HUM @ 2348 = 92.7%	
480											

14" #3

Date ... Aug 25/26-97 ... Observers .. Hdy (24") / Fbr .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9555	4019+7433	20 28 36	75 14	23 50 35					400s
9556	"	"	"	23 57 33					"
9557	"	"	"	00 04 30					"
~~9558~~	~~Comp~~							~~Fbr~~	~~300s~~
~~9559~~	~~Fbr~~							~~Fbr~~	~~180s~~
~~9560~~	~~Bins (4)~~								
9558	Bins (4)								
					All To Perseus and WORM.				

Spectr. Te
Focus ...
Spectr. Te

Exp Mtr
425
430
300

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ....HAZE./HUM.IA.....

Focus ....6..6.0.....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS OFF

144

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
435				CASS CCD	1800 λ=5530	250 μ	λ-5880		Hdy		
430										SHUTTERS DRIPPING.	
300										93.1% HUM B 0005	
										CLOSE	

145

Date Aug 27/28 '92 Observers Hdy/Fbr

Emulsion Batches:
.....
.....
.....

Spectr. Te
Focus ....
Spectr. Te

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
cc09559	BIAS									
9560	BIAS(4)									
9561	BIAS									
9562	BIAS(4)									
9563	BIAS									
9564	BIAS(4)									
9565	BIAS									
9566	BIAS(4)									
9567	BIAS									
9568	BIAS(4)									
	ALL TO PERSEUS AND WORM									

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..drizzle.....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

$T_{CCD} = -100$ C

480 0 50 1024 4 1 ccd fmt

'96

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality

14?#1

FeAr(C) 35s
Tung 10s

Emulsion Batches:
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.....
.....

Date ..Aug31/Sept1-92.. Observers ..Hdy(24")./Fbr.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
~~09569~~	Bias(4)								
9570	Comp							Fe Ar C(a)	35s
9571	HD177724	19 00 49	13 43 00	20 34 04					114s
9572	HD177724			20 36 45					129s
9573	Comp							Fe Ar C(a)	35s
[illegible]	[illegible]							[illegible]	
[illegible]	[illegible]							[illegible]	
[illegible]	[illegible]							[illegible]	
9574	FLAT							TUNG A=?	4s

Spectr. Ter
Focus
Spectr. Ter
Exp Mr

Spectr. Temp. ..... Dome Temp./Hum. 59.1%/16.°C Transparency Conditions ... Some Cloud ..... 148.

Focus ..... 6.6.0 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

90c gain - Panasonic Camera
480 0 50 1024 41 ccd fast

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 G=5530	250 μ	λ=5880				
										COMP/FLAT - DONE MANUALLY	
20K		V 2.99	AOV						TELLURIC STD.	TRACKING ON (WEAK)	
22K										NO TRACKING	
										T=14.6°C / H=64% (20:58)	
				EQUIPMENT FAILURE. POWER DOWN.							

[illegible]

Emulsion Batches: ....

Date .. Sept 1/2 92 .. Observers .. Hdy (24") / Fbr ....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
cc09575	BIAS (4)								
9576	DARK			19 25 49	19 35 49				10 min.
9577	BIAS (4)			19 36 24					

Spectr. Temp. .... Dome Temp./Hum. .... Transparency Conditions ....Some Cloud........

Focus ....

Spectr. Temp. .... Dome Temp./Hum. ....

omparison ilter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						CASS CCD	1800 G=5530	250 μ	λ=5880				
	10 mn											LIGHTS ON	

S #1

Emulsion Batches: .....

Date ..Sept. 12..... Observers ..Hdy (24")/Fbr.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9578	TEST ~~BD+76°876~~ SAO 9829	J2000 203726	J2000 +75 29 01 To June 96	21 26 14					203s
9579	Bias(4)								
9580	Comp							Fbr Cen	35s
9581	HD197433	203836	7514	22 08 32					400s
9582	"			22 15 29					"
9583	"			22 22 27					"
9584	"			22 29 24					"
9585	"			22 36 22					"
9586	"			22 43 19					"
9587	"			22 50 17					"
9588	"			22 57 14					"
9589	Flat REVERSE?							Fbr Δ=½	10s
9590	Bias(4)								
9591	Comp							Fbr Cen	

Spectr. Temp. ..... Dome Temp./Hum. 13.3°C / 65.3% Transparency Conditions ..... CLEAR 152

Focus .... 6.60 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 5530	250 μ	λ-5580			OBSERVING BY EYE!	
1240									Hdy		
1600											
1700											
1700											
1503											
1500											
1300										WAY OFF TO ONE SIDE.	
1232											

253

Date ..Sept. 12..... Observers ..Hdy. (24") / Fbr.....

Emulsion Batches:
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.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9592	HD197433	20 38 36	75 14	23 44 05					400s
9593	"			23 51 03					"
9594	"			23 58 01					"
9595	"			00 04 57					"
9596	"			00 11 55					"
9597	"			00 18 53					"
9598	"			00 25 51					"
9599	"			00 32 48					"
9600	BIAS (4)								
9601	COMP							Rdr Cu	355
9602	FLAT							Dry	10s
9603	HD197433			00 49 18					400s
9604	"		NO STAR						
9605	"			01 03 13	(NO STAR)				"
9606	"			01 10 11					"
9607	"			01 17 08					"

Spectr. Temp. ..... Dome Temp./Hum. 12.2°/64.6% Transparency Conditions ....Clear.....1½...

Focus ....6.60.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1820									Hdy.	BAD - END OF SLIT	
1860											
2060											
1800											
2045											
1600											
1200											
[illegible]										LOST THE STAR!	
?										No Enclosure! Keep Losing	
?										Star And Race	
?										Misbehaving!	
600										This Is Awful!	
2050											

3 5 5

Date .....SEPT/2-92.... Observers ...Hdy(24")/F.D.C.....

Emulsion Batches:
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.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9608	HD 197433	20 38 36	75 14	01 24 06					400s
9609	"			01 31 04					"
9610	"			01 38 02					"
9611	Bias								
9612	Flat							FCA UCon	355
9613	Comp							TUNG A = 1/2	105
9614	HD197433	20 38 36	75 14	01 51 08					400s
9615	"			01 58 06					"
9616	"			02 05 03					"
9617	"			02 12 01					"
9618	"			02 18 59					"
9619	"			02 25 56					"
9620	"			02 32 ~~54~~					"
9621	"			02 39 52	02 46 32				"
9622	Bias(4)								
9623	Comp							FCA UCon	355

Spectr. Te
Focus....
Spectr. Te

Exp Mtr

30
400
"
1200
1400
1600
1800
970
TOTAL
3374

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... CLEAR .....

Focus ..... 6.60 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

156

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2100											
1700											
1300											
1800											
1200											
1250											
1300											
600										CLOUDS	
970											
TOTAL 374										DEC FUSE BLOWN	
										NOTHING.	

4.57

Date ..... Sept 1/2-92 ... Observers ... Hdy. Fbr .....

Emulsion Batches:
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.....
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9624	FLAT								
9625	HD 197433	20 38 36	+75 14	02 58 18					400s
9626	"			03 05 16					"
9627	"			03 12 13					"
9628	"			03 19 31					"
9629	"			03 26 29					"
9630	"			03 33 27					"
9631	BIAS (4)								
9632	COMP							FeAr Clear	35sec
9633	FLAT							Tung A=1/2	10sec
9634	COMP							FeAr Clear	35 sec
9635	HD 5394			03 55 53					
9636	"			03 57 54					
9637	Comp								
9638	FLAT								
9639	FLAT								

Spectr. Te
Focus....
Spectr. Te
Exp. Mtr.
1218
770
1983
700
7532
6754
20K
22K

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..CLOUD..... 15C

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1320										PUSHING THROUGH CLOUDS WITH THE 4 EYEPIECE!	
1218										"	
770										"	
} 1963										"	
										"	
700										"	
7532											
										14608 ADU MAX	
6454											
20K									TELLURIC		
22K									TELLURIC		

55

Date ... Sept. 1.|2-92 Observers ... Hdy.|Pp-

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9640	Comp							Fe/Ar Cu	35s
9641	Bias								
9642	HD 22928	03 35 48	47 28						82s
9643	"	"	"	04 20 58					
9644	Comp							Fe/Ar Clear	35s
9645	Flat							Tung A=1/2	8s
9646	Flat							"	"
9647	Flat							"	"
9648	Bias (a).								

Spectr. Te
Focus ....
Spectr. Te

Exp Mtr

22K

21K,

Spectr. Temp. .... Dome Temp./Hum. .... Transparency Conditions ....

Focus 160

Spectr. Temp. .... Dome Temp./Hum. ....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
22K									TELLURIC		
21K.									"		
										12177 ADU	

pg# 2 Fri - Sat

Date ...SEPT. 4/5 -92... Observers Hdy./.Tn/.Fbr.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9649	BIAS(4)								
9650	Comp							FeAr Clear	90sec
9651	HD177724	19 00 49	13 43 00	20 55 26					78s
9652	"			20 58 02					96s
9653	"			21 00 08					95s
9654	FLAT							TUNG A=1/2	8sec
9655	FLAT							TUNG A=1/2	"
9656	FLAT							TUNG A=1/2	"
9657	~~FLAT~~							TUNG A=1/2	"
9658	Comp							FeAr Clear	90s
9659	BIAS(4)								
9660	Comp								
9661	FLAT							TUNG A=1/2	7secs
9662	HD197433	20 38 36	75 14	21 25 51					400s
63	"								"
64	"			21 39 46					"

Spectr. Temp. ..... Dome Temp./Hum. 17.6°C/51.5% (2030) Transparency Conditions ..... CLEAR .....

Focus ..... 6.6.0 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

CLAMBDA 90 CG4in 480 0 50 1024 1 CLOFOTT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=6050 1800	250E FULL	6600Å				
								3ci			
20 K		V 2.99	AOV?nn						TELLURIC		
20K											
20K											
										MAX 14,200	
								3ci			
		V 7.3 -7.7	G5V +K0V +K5V							MAX= 13220 ADU	
1280	2"							6ci	Hdy Pgm		
1250											
1355											

Mpg #2

Date ...Sept 4/5-92... Observers ...Hdg (24") Tm / Fbr...

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
9665	HD197433			21 46 45					40s	1560
9666	"			21 53 42						1980
9667	"			22 00 40						1860
9668	"			22 07 38						1950
9669	"			22 14 36						1940
9670	BIAS(4)									
9671	Comp							FeAr Clear	~~170~~	
9672	FLAT							TUNG A-1/2	7sec	
9673	HD197433			22 33					400s	720
9674	"			22 37 09						1870
9675	"			22 44 07						1640
9676	"			22 51 05						1760
9677	"			22 58 02						[sum of 2]
9678	"			23 05 00						[3600]
9679	"			23 11 58						2080
9680	"			23 18 56						

Spectr. Temp. ..... Dome Temp./Hum. 16°C ..... 60.5% Transparency Conditions ..... Clear 164

Focus ..... G.G.9 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... central Lambda

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1560				CASS CCD	G=6050 1800 l/mm	250	6600	6ci	Hdy pgm	All using a batch	
1980										r	
1860	2"										
1950											
1940											
								1ci			
								7ci		MAX ≃ 7K ADU	
								8ci		MAX 13.7K ADU	
720								9ci	Actual start exp (Stag on slit)	ie 22 28 48 nominal START	
1870	<2"										
1640											
1760											
[sum of 2 2800]											
2080											

#3

Date ...Sept 4/5 92... Observers ..Hdy. (24") T./For...

Emulsion Batches:
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.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9681	BIAS (4)								
9682	FLAT							For Clear	90s
9683	Comp							Tung A=1/2	7s
9684	HD197433	20 38 36	+75 14	23 32 06					400
9685	"			23 39 04					
9686	"			23 46 02					
9687	"			23 53 00					
9688	"			23 59 58					
9689	"			00 06 55					
9690	"			00 13 53					
9691	"			00 20 51					
9692	BIAS (4)								
9693	Comp							For Clear	90sec
9694	FLAT							TUNG A=1/2	7sec
9695	HD197433			00 35 03					

Spectr. Temp. ..... Dome Temp./Hum. 15°C/68.5% Transparency Conditions ..... CLEAR .....

Focus ....6.60.....

Spectr. Temp. ..... Dome Temp./Hum. 15.4°C. 66.4%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 6=6050	250E M	λ=6600Å				
1840s		V= 7.3 -7.7	G5V +K0V +K5V							Hdy	
2140											
2150											
2300											
2140											
1960	1"-2"										
1690											
1600										(λ 2700 ADU sum AVG above Background 31-33 cols)	
										Dome T = +15.5°C	
								10c;			
								11c1		14.3K ADU max	
1500								12c;			

1/74

Date 1992 Sep 4/5 Observers Hdy / Jn / Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
CC09696	HD197433	20 38 36	+75 14	00 42 04					40s	1550
9697	"			00 49 18					"	
9698	"			00 56 14					"	2185
9699	"			01 03 12					"	1820
9700	"			01 10 10					"	2250
9701	"			01 17 08					"	2020
9702	"			01 24 06					"	1350
9703	Bias									
9704	Flat							Tung A:1/2	7s	
9705	Comp							Fe/Ar Cla	90s	
9706	HD197433	20 38 36	75 14	01 36 32					40s	2000
9707	"			01 43 30					"	1770
9708	"			01 50 28					"	1770
9709	"			01 57 26					"	2150
9710	"			02 04 24					"	1970
9711	"			02 11 22					"	190

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... Fine - sl haze .....

Focus .... 6:60 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

168

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1550				CASS CCD		250	6600Å	13i	Hdy pgm		
								14i		Repeat x6	
3185	Σ of 2										
1820											
2050											
2020											
1850								14i			
2000								6i	Hdy.		
1970											
1970											
2150											
2090											
2180											

#5

Date 92-Sept 4/5 Observers Hdy (24") Tn/Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9712	HD197433	20 38 36	75 14	02 18 20					400s
9713	"			02 25 18					"
9714	BIAS								
9715	COMP							Fe-Ar CLEAR	90sec
9716	FLAT							TUNG H=1/2	7sec
9717	HD197433			02 38 28					400sec
9718	"			02 45 26		04 57 W			"
9719	"			02 52 24					"
9720	"			02 59 22					"
9721	"			03 06 20					"
9722	"			03 13 18					"
9723	"			03 20 16					"
9724	"			03 27 13					"
9725	BIAS (4)								
9726	FLAT							TUNG A=1/2	7sec
9727	COMP							FE-Ar CLEAR	90sec

Spectr. Temp. ..... Dome Temp./Hum. .7.14.5°C..65.3% Transparency Conditions ....Fine.....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

170

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1850											
1665								6c;			
								15c;			
								16c;			
Sum of 2								17c;		Repeat of 8 exp	
4000	2"										
1830											
1730											
1850											
1820											
1570											
1610								17c;		2.5K Add 3 sum AVG of 5 cols a Base Background	
								1c;			
								18c;		13.3K MAX	
								19c;			

17" #6

Date 1992 Sept 4/5 ..... Observers Hdg ... Fbr Tn .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Spectr. Te / Focus / Spectr. Te / Fig Mir
CC09728	HD197433	20 38 36	+75 14	03 40 09		05 52 W			400s	1480
29				03 47 20					"	1780
30				03 54 26					"	1315
31				04 02 20					"	1270
32				04 09 18					"	1300
33				04 16 16					"	Sun obs
34				04 23 13					"	350
35	BIAS(4)									
36	Comp							FeAr Clamp	90s	
37	FLAT							TUNG A=1/2	7sec	
38	HD197433			04 37 55					400s	1330
39	"			04 44 51					"	1135
40	"			04 51 50		07 03 W			"	1310
41	BIAS									
42	FLAT									
43	COMP									

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... Fine .....

Focus ..... 6.60 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... +13°C 70%

172

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1480								20i			
1280								21i			
1315								22i			
1270								23i	Repeat x4	ΔRA @ -00 00 55	
1300								11		Moves spectrum up	
Sum of 2								11		Rel to ΔRA @ -00 01 00	
2500								23i		x 2 cols / ΔRA xx	
										Dome T = +13.5°C	
								24i			
								25i		127 k max ADU	
1330								26i	Repeat x3		
1125											
1310								26i			

Exp. 1 SAT Sun

Date 1992 Sept 5/6 Observers Hdy / Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC09744 45	COMPARISON STELLAR FOCUS TEST					0 0	+43°	FeAr Clear	10/10
9746	BIAS(4)			19 22 46					
9747	DARK			19 23 41					600s.
9748	BIAS(4)								
9749	HD177724	19 00 48	+13 43	19 46 23		00 23E			70s
9750	COMP							FeAr Clear	70s
9751	FLAT							Tung A=1/2	10s
9752	COMP							FeAr Clear	60s
9753	FLAT							Tung A=1/2	10s
9754	HD 197433			20 18 23					400s
9755	"			25 21					"
9756	"			32 18					"
9757	HD 197433			20 39 23					"
9758	"			[illegible]					"
9759	"			53 18					"
9760	"			21 00 35					"

Spectr. Temp. ..... Dome Temp./Hum. +18.3°C/67.7% Transparency Conditions .Hazy ... clouding in .....

Focus ..6.65 ... changed from G60 Tel Normalized on BSC791 All normal 174

Spectr. Temp. ..... Dome Temp./Hum. ..... C LAMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Set 665		1.185°C		CHSS CCD	1800 l/mm G=5505	250E 5900Å Full Length		3c; 4c;	Focus Test	360 0 12 1024 40 1 CCDFOCT Right on or Stellar (WWSI Red)	
					1800 l/mm G=5535			1c;			
								5c;			
								1c;			
11,400	1"-2"	V 2.99	AOV? nn					6c;	Telluric Std	Som. cloudy	
								7c;			
								8c;		15273	
								9c;			
								10c;		13976	
597		V 7.3 - 7.7	G					11c;		ΔRA = +46.5s	
333											
390											
405											
?											
609											
360											

175 pg #2 SAT Sun

Date 1992 Sep. 5/6 ..... Observers . Hdg. / T.T. .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
CCO 9761	HD 197433	20 38 36	+75 14	21 07 36		00 39 E			400s	420
9762	FLAT							Tung A=1/8	10sec	
9763	Comp							FeAr Clear	60sec	
9764	BIAS (4)									
9765	HD 197433			.....?					400s	290
9766	HD 197433			21 28 21					400s	90
9767	HD 197433			21 44 36					457s	280
9768	"			21 55 35					400	150
9769	Comp							FeAr Clear	60s	
9770	Flat							Tung A=1/2	10s	
9771	Bias (4)									
9772	DARK			22 12 05					225s	
9773	DARK			22 17 27					600s	
9774	BIAS (4)									
9775	BIAS (1)									
9776	BIAS (1)									
9777	FLAT	PLATFORM						Tung A=1/2	14s	
9778	COMP							Comp Clear	600s	
9779	DARK								600s	1493
9780-1	BIAS (1) x 2									

Spectr. Temp. ..... Dome Temp./Hum. +18½°C ... 72.4% Transparency Conditions ... V. Hazy .....

Focus ... 6.65 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... note Hi L Limit for CCD Box @ +75°30' is 0207W

176

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
420	2"					250 Full 2	5900B	12c;	Hdy pgm		
								13c;		13.5 K MAX ADU	
								14c;			
								1c;		Dome T = +18.1°C	
290								~~15c;~~			
90								15c;			
280								15c;		~~400~~ ADU Sum HUG above pkgnd, medium thick cloud ∴ ≈ 40/1 S/N ??	
150								16c;			
								17c;			
								18c;		12602	
								1c;			
								19c;		LIGHTS ON T_CCD = -101.8°C	
								19c;			
								1c; 20c;			
			D D	256 1024 4	1 ccd fmt			21c;		~~1200~~ 1720	
126538								20c;		13168	
								20c1 22c1		T_CCD = -100.9	

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Date 1992 Sept 6/7 Observers Hdy/Tn

Emulsion Batches: .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC 9782 9783	COMP STELL FOCUS TEST			~		0 0	+43°		
9784	BIAS(4)								
9785	COMP							FeAr Clear	60s
9786	FLAT							Tung A=1/2	10s
9787-8	HD 177724	19 00 48	+13° 43'	(19 20 21 ~~- 281 secs exp~~) 19 33 44		00 28E			~~947~~ 847
~~9789~~	FLAT							Tung A=1/2	10s
~~9790~~	COMP							FeAr Clear	50s
9791	BIAS(4)			19 53 49					
9792	~~COMP~~ DARK 750 secs.							~~FeAr Clear 60s~~	
9793	~~FLAT~~ BIAS(4)							~~Tung A=1/2 10s~~	
9794	COMP							FeAr	
9795	FLAT							Clear	60sec
9796	BIAS(4)								
9797	HD 197433	20 38 36	+75 14	23 49 40		02 08W			400+
9798	HD 197433			23 57 37					400
9799	"			00 04 34					"
9800	"			00 11 32					"
~~9801~~	"			00 18 29					"
9802	BIAS(4)							Tung	
9803	FLAT							A=1/2	10s
9804	COMP							FeAr Clear	60s

Spectr. Temp. ..... Dome Temp./Hum. +20.8°C / 85.4% Transparency Conditions haze → cloudy ... 178.

Focus ... 6.65 .....

Clearing by 23 30

Spectr. Temp. ..... Dome Temp./Hum. .....

~~1 77~~. www brought in & updated mkIII ~~wrong~~ incorrectly.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		V		CASS CCD	1800 l/mm G=5535	250 E Full	5900 Å			Stellar ≈ .3 pixels Real	
									Tel Normalized	* [www Time out 1 min] on BS 6791 again	
								5c; 6c;		13384 MAX for FLAT	
30,000 ~~300~~		V 2.99	AOI? mm					7c;		Rapid cloud in	
								8c; 9c;			
								1c;			
								~~10c~~ ~~11c~~			
(10 sec A=1/2 Flat)								18c; 19c;			
								1c;	Dome T = +20.0°C		
										Δ RH = -0.0044	
750		V 7.3 – 7.7		HEADER SCREWED UP (Times)				~~5~~ ~~6~~c;	Hdy pgm	Tel on East side	
690								5c;			
700	2"							"			
520								"			
265								"			
										14 MAX for FLAT	

Mon - Tues

Date 1992 Sept 7/8 Observers F.Ma./J.T.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CE 4900	HD210839	22 0807	+58 55	20 47 05	21:07:00	-2:12 E			1200 ~~18~~ s
4901	Th-Ar			~~21 12 b~~				Th Ar	7s
4902	HD 210839			21 12 II	21.32:11	-1.47 E			1215s
4903	Th Ar								7s
4904-06	3 x Flat Field			21.50	21:53				20s
	CLOSED at 21:42	due to high humidity.							
4907	Bias (4)			21:53					
4908 4909	HARTMAN focus inboard/outboard			00 00		0740W	+14°	Th A	5/5

Spectr. Temp. ..... Dome Temp./Hum. +19.8°C 91% @ 2048 Transparency Conditions ..Hazy..>.5 cloudy.....180.

Focus ...•230.....•250 for final focus test < 2 pixel Rel be out board

Spectr. Temp. •230 showed out board Dome Temp./Hum. ..... Central ORDER 90 CGAIN CCDT > -100°C
Rel by ≥ 1 pixel

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
184				Echelle CCD	18.25	W=60 μ H=600μ	4600Å	4ci	SI H=.205 Slit w=.277	X grating e .454 Test Exp.	
								5ci			
184								6ci			
								7ci			
						W=60μ H=800μ		3ci	Slit H=.185	Max = 10,300 ADU	
						A=					
	T=+19.5°C Set=.250					W=60μ H=600μ		8ci 4ci	Focus Test	OUT < .2 pixels Rel (.253 for 120μ SIT width) ≈ 5 pixel width when in perfect focus	

gg #2 Tues / Wed

Date 1992 Sept 8/9 Observers Fln. Tn.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce04910 cc04912	FLATS x3					0 0	+43°	TuW	12sec
4913	Bias x4								
4914	Comp							ThAr Clear	45sec
4915	HD210839	22 0807		194749		0302E			1807
4916	Comp							ThAr	45sec
4917	HD210839			201630		0228 E			1810
4918	Comp			204820				ThAr	45secs
4919	HD 210839			20:49:40					1806
4920	Bias x4			21:20:45					
4921	Comp			21:22:16				ThAr	45
4922	HD 210839			21:23:28					1835
4923	Comp							ThAr	45
4924	HD 210839			215557		0 48 E			1854
4925	Comp			22 31 01				ThAr	45
4926	Bias x4			22 33 19					
4927	HD 210839			22 35 59					1806

Spectr. Temp. ..... Dome Temp./Hum. 18C ... 67% Transparency Conditions ... FINE ... 18.2

Focus ... 250 ... BS 6791 Tel Normalization Star

Spectr. Temp. ..... Dome Temp./Hum. ..... 90 CG/Hin CCDT - -100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Ech Grating/ Tilt	Slit	Emulsion CLAMBDA	P.H.	Program	Remarks	Quality
				echelle CCD	17.97	120u		3ci	X tilt = .454	MMA x 12k 4D4	
					H = 800u		set 185				
					W = 120u		set .253	1ci			
					H = 600u		set 205				
								4ci			
490	4½"	V 5.0	06I (m)f					(5ci)	Fln pgm	≈ 5600 ADU SATURATING - use Extract for 10 cols VSini = 214 kms @ 4686A	
								4Ci			
439								6ci			
								4ci			
618								7ci			
								1ci			
								4ci			
660	3"5							2ci	* check readout		
								4ci			
738	4"5"							6ci	"Wfits" command issued before "readout" data same as CE@ 7117		
								4ci	This op is fine		
								2ci			
550								2ci		≈ 5000 ADU Stop wings ok for 10 cols above background	

Log pg 42

Date 1992 Sept. 8/9 Observers F.Ho./J.Tu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC04425	Comp							Th Ar	4sec
4929	HD210839			23 08 20					1801
4930	Comp							Th Ar	4sec
4931	BIAS (4)								
4932	HD210839			23 42 59		0h 57m W			1800
4933	Comp			00 14 32				Th Ar	4sec
4934	HD 210839			00 16 27 ~~00 14 32~~		1h 31m W			1801
4935	Comp			00 47 43				Th Ar	
4936	Bias (4)								
4937-39	Flats x3		59° 23'			1h 41m W		TUNG	12s
4940	HD 210839			00 58 04		2h 13m W			1801s
4941	Comp			01 29 40				Th Ar	4sec
4942	HD 210839			01 31 02		2h 47m W			1803s
4943	Bias (4)								
4944	Comp			02 15 19					

Spectr. Temp. ..... Dome Temp./Hum. 13.5°C 73.3% Transparency Conditions .. Fine 184

Focus ..... 250 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				echelle CCD	W= 120μ H= 600μ						
710	3"-4"	V 5.0	061	(w)f				7ci	Flat pgm		
								1ci			
928								6ci			
								4ci			
1009								7ci			
								4ci		(No streaks in spec)	
										OK	
					note Slit Height St.1 600μ not changed for Flats.			3ci	START of "Streak problem"	1st Flat noted to be reverse Neglected to lengthen slit	
1081								6ci	9 HADU sum	Avg of 4686 Å line blkgnd for 10 cols	
								4ci		6 streaks in spec	
1069								7ci			
								1ci		Initial Bias had peculiar pattern	
								4ci		Peculiar "bleeding" to right from strongest Thar emission line.	

Pg #3

Date 1992 Sept. 8/7 Observers Fla/Tu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CE04945	HD 210839			2:24:29		3h 40m W			1813s
46	Bias (4)			3:0[illegible]:11					
47	Comp			3:07:45					
4948-50	Flats x 3		+59° 23'	3:29:22		4h 12m W			15s
	CLOSED @	3:45 EST	=> High	humidity (dome dripping)	+ CCD	peculiarities			

Spectr. Ter
Focus....
Spectr. Ter
Exp. Mtr.

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... Fine .....

Focus ..... 250 .....

Spectr. Temp. ..... Dome Temp./Hum. +12°C ..... 78% CCD T −100.5 @ 0230

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1028				Echelle CCD	H= 600 m	120 u		6ci			
								2ci		Residual spectrum present	
								1ci		Still streaking to right	
					H= 800 m	120 u		3ci		(Max, Max) ≈ (607, 14735) Evidence for "streaking" 10 pmw vs 900 pmw	
				All to Perseus & work on							

185

Date ... SEPT. 10/11-92 Observers ... FLN | FBR

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
e04951	Bias (4)			~~19~~ 39 43					
4952	Flat							Tung	13s
4953	Flat								13s
4954	Flat								13s
4955	Bias (4)								
4956.	Comp							ThAr	4s
4957	HD 210839	22 08 07	58 55 00	20 27 10					1800s
4958	Comp							ThAr	4s
4959	HD 210839	22 08 07	58 55 00	21 00 22					1800
4960	Comp							ThAr	4s
4961	Bias (4)								
4962	Comp							ThAr	4s
4963	HD 210839	22 08 07	58 55 00	21 59 10	22 31 10				1926
4964	Comp								
4965	HD 210839	22 08 07	58 55 00	22 33 35					1800

Spectr. Temp. ..... Dome Temp./Hum. .16.6°C/.56.1% Transparency Conditions ...P.TLY..CLOUDY.....

Focus .....0.250.....

Spectr. Temp. ..... Dome Temp./Hum. ..... 90 Cyan 00 256 1024 4 1 ccdfmt

188

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				ECHELLE CCD	ω=120μ → 0.253						
					H=600μ → .205						
					ω=120μ						
					H=800 → .185						
800	2"	V 5.04						5c?	FLN	POOR SEEING AIRMASS = 1.1379	
								3c?		HUM = 59.2% / T = 15.7C	
610									THICK CLOUD.	HUM 59.2 T = 15.0	
										CLOUDY FOR	
1000	4"-6"									~30 min.	
										AIRMASS = 1.0461 HUM: 62.2	
~800											

1991 #2

Date ... Sept. 10/11-92 ... Observers ... F.Em / F.Br ...

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
4966	Comp							TWIr	4s
4967	Bias (4)								
4968	Comp							TWIr	4s
4969	HD 210839	220807	58 55 00	23 10 18					180C
4970	Comp							TWIr	4s
4971	HD210839	220807	585500	234318					1800
4972	Comp							TWIr	4s
4973	Bias (4)								
4974	Comp							TWIr	4s
4975	HD210839	220807	585500	00 18 09					180C
4976	Comp							TWIr	4s
4977	HD210839	220807	58 5500	01 00 25					1829
4978	Comp							TWIr	4s
4979	Bias (4)								
4980	Comp							TWIr	4s

Spectr. Temp. ..... Dome Temp./Hum. 14.1°C/64.6% (2308) Transparency Conditions ... PLY: CLOUD .....

Focus .....0.250.....

Spectr. Temp. ..... Dome Temp./Hum. .....

190

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Echelle CCD	ω = 120μ → .253 H = 600μ → .205						
800		V 5.04							Flu		
										POOR SEEING	
950									Flu	AIRMASS: 1.0438	
600										CLOUD! (THICK).	
836											

2+3

Date ..... Sept. 10/11-92 Observers ... Flm./Fbr.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
4981	HD210839	22 0807	58 5500	01 37 10 -					
4982	Comp			02 12 03				Thar	4s
4983	HD 210839	220807	585500	02 13 16					
4984	Comp							Th/Ar	4s
4985	Bias (4)								
4986	Flat Field								14s
4987	Flat Field								14s
4988	Flat Field								14s
	Closed @ 3:10 EST		due to high humidity		and cloud				
4989	Bias			03 03 55					

Spectr. Te
Focus ....
Spectr. Te
Exp Mtr

Spectr. Temp. ..... Dome Temp./Hum. T= 12.1°C/H=75.6% Transparency Conditions ....Hazy..Cloudy.....

Focus .....0.250.....

Spectr. Temp. ..... Dome Temp./Hum. ..... 90 C gain

192

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		V 5.04		Echelle CCD					FCm		
										Clouds for part of exp. Airmass = 1.1643	
							H=800 = 0.185			Max Min = 12377, 635	
				All Perseus c mo Rm - TO Exabyte Seq 12/92 Tape							

Fri.-Sat. pg#1

Date Sept. 11/12, 1992 Observers F.N./T.N.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CE04990	BIAS (4)			19:05:30					
4991-4995	Flat Field x 5							TUNG	15s
4996	Comp (ThAr)			19:25:48		-3h37m E		ThAr	4s
4997	HD 210839	22h 08m 07s	+58° 55'	19:27:22		0306E		~~FlAr~~	1805s
4998	Comp							ThAr	4s
4999	Bias (4)								
5000	HD 210839			20128					1800s
5001	Comp			20 32 15				ThAr	4s
5002	HD 210839			20 33 47					1800
5003	Comp							ThAr	4s
5004	BIAS (4)								
5005	HD 210839			21 0840					1804s
5006	Comp							ThAr	
5007	HD 210839			21 41 18					1801s
5008	Comp			22 12 27				ThAr	4s
5009	Bias (4)			22 13 37					

Spectr. Temp. ..... Dome Temp./Hum. 42.1 / 55.5 Transparency Conditions .. Fine 194

Focus ... 0,240 .....

Spectr. Temp. ..... Dome Temp./Hum 8.3°C 65% ELIMINDA

CCD FORMAT
0 0 256 1074 4 1
90 CGAIN CCD T ⇒ -100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Ech Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	xgrating = 454			echelle CCD	1797	120μ	4600Å	1ci	BS6791 Tel	Normalization STAR	
						W 120μ H 800μ = .185 sec		3ci	Add title to W, 22, 23	(Max, Min) = (12,604, 658)	
						W 120μ H 600μ		4ci			
1090	4"	V 5.0	06I					5ci	Flu pgm	8K ADU Scan AVG above Fcal 7 cols	bkgnd
								4ci			
								1ci			
1102	·							6ci		Δ RA Δ dec 00 00 12 -00 01 00	
								4c			
1037	5"							7ci			
								4ci			
								1ci		Pmt T = +8.9°C	
1120	4½"							2ci			
								4ci			
1157								5ci			
								4ci			
								1ci			

Fri.–Sat. pg #2

Date Sept. 11/12., 1992. Observers Fln / Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
5010	HD 210839	22h08m07s	+58°55'	22 17 24					1800s
5011	Comp			22 48 07				ThAr	4s
5012	HD 210839			22 49 16					1805s
5013	Comp							ThAr	4s
5014	Bias (4)								
5015	HD210839			23 24 46					1802s
5016	Comp.			23 55 56				ThAr	4s
5017	HD 210839			23 57 40					1800s
5018	Comp			0 28 35				ThAr	4s
5019	Bias (4)			0 29 45					
5020	HD 210839			0 33 36					1802s
5021	Comp			1 04 35				ThAr	4s
5022	HD 210839			1 05 44		0233W			
5023	Comp			01 36 28				ThAr	4sec
5024	BIAS (4)								

Spectr. Temp. ..... Dome Temp./Hum. +8.4°C H=66% Transparency Conditions Fine 19.6...

Focus ..... 240 .....

Spectr. Temp. ..... Dome Temp./Hum. +7.6°C H=69.3%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1229								6ci			
								4ci			
1208								7ci			
								4ci			
								1ci		Dome T = +8.4°C	
1225	3"-4"							2ci			
								4ci			
1364								5ci		(Max, Min) = (16,383, 181)	
								4ci			
								1ci			
1533								6ci			
								4ci			
1520	2"-3"							7ci		IIIa-J04 sum 4UG @ 4686Å + bare 2040+ background.	
								4ci			
										∴ √440 × 0 S/N Final was > 200/1 S/N	

Pg #3
Fri Sat

Date 1992 Sep 11/12 Observers Fbn./T.Y.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce05025	HD210839			01 40 55					1806^s
5026	Comp			02 11 41				ThAr	4^s
5027	HD 210839			02 13 37					1823^s
5028	Comp			02 44 45				ThAr	4^s
5029	Bias (4)			02 45 56					
5030	HD 210839			02 47 59					1800^s
5031	Comp			03 18 48				ThAr	4^s
5032	Bias (4)			03 25 15		$-1^h 24^m E$			
5033	Comp			03 27 08				ThAr	4^s
5034	HD 24912	$3^h 52^m 28^s$	$+35° 30'$	03 28 26					1200^s
5035	Comp			03 49 13				ThAr	4^s
5036	HD 24912			03 50 51					1226^s
5037	Comp			04 12 03				ThAr	4^s
5038	HD 24912			04 13 08					1202^s
5039	Comp			04 33 51				ThAr	4^s

Spectr. Temp. ..... Dome Temp./Hum. +76°C 69.4% Transparency Conditions ..... 98 .....

Focus ..... 2.40 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1370					W 1200 H 600		4600Å	5ci			
								4ci			
1227								6ci			
								4ci			
								7ci			
1160								7ci			
								4ci			
								1ci			
								4ci			
2560	4"	V= 4.04	075III					5ci			
								4ci			
2630								6ci			
								4ci			
2918								7ci		header contains $\frac{(k_1 a^2)}{8} \sqrt{\frac{k_2}{D}} \lambda G$ (no 21 cm)	
								4ci			

Page #4 Fri/Sat.

Date 1992 Sept. 11/12 Observers Flw./Tw.

Emulsion Batches:
.....
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CE0504Ø	BIAS(4)			04 34 48					
5041	HD 24912			04 37 43					1200s
5042	Comp			04:58:28				ThAr	4s
5043-47	Flat Field x5			05:04:10					15s
5048	BIAS(4)			05:11:46					
5049	DARK			05:17:21					600s

Spectr. Temp. ..... Dome Temp./Hum. +6.9°C / 74.1% Transparency Conditions .... Fine .....

Focus ..... 0.240 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... Tel focus at end = 2230

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Echelle CCD.	W 120μ→ H 600μ→		4600Å	ki			
120s	2732							5ci			
4s								4ci			
15s					W 120μ H 800μ			3ci	✓✓✓✓	(Max, Min) = (16,383, 881)	
								1ci			
600s								5ci		During tty-up dewar CCD T = −101.8 °C	
					H/K to Perseus & WORM + Fln dbl copy on his exabyte.						

Bi Pg #1 SAT SUN

Date 1992 Sep 12/13. Observers ..Ta..Tol...for.Fin..

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce05050	BIAS(4)			2231					
ce05051 - 5055	FLATS x5			2237		00 30W	+58°	TUNG	12s
5056	DARK 10min								
5057	Comp							ThAr	45e
5058	HD210839	22 0807	+58 55	232334					1800
5059	Comp							ThAr	45e
5060	BIAS(4)								
5061	HD210839			23 58 12					1800
5062	Comp							ThAr	45e
5063	HD210839			00 3204					1801
5064	Comp							ThAr	45e
5065	BIAS(4)								
5066	HD210839			01 0535		02 37W			1800
5067	Comp							ThAr	45e
5068	HD 210839			01 3745					
5069	Comp							ThAr	45e

Spectr. Temp. ..... Dome Temp./Hum. +12°C 68.7% @ 2240 Transparency Conditions .. PART. Cloudy 202

Focus .. 2.40 .....

RASC Sat night TOUR Saturn OK good seeing

Spectr. Temp. ..... Dome Temp./Hum. ..... with BOA 900 GAin CCDT -101 °C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				echelle CCD	17.97		4600Å	1c;		x grating .454	
						W 120μ H = 800μ	set=253 set=.185	3c;		MAX = 12K ADU	
								5c;			
						120μ 600μ	set=.205	4c;			
2234	<2"	5.0 V	06I					6c;	Fln Pgm	Cloud extend	
								4c;			
								1c;			
2436								2c;		18000 ADU Sum NOG edge Brgnd for 10 e⁻/s.	
	1½"							4c;		72K photons 250/1 S/N	
1834	1½"							5c1			
								4c			
								1c;		Dome T = +11.2°C	
2131	1½"							7c;		thin cloud	
								4c;			
2100	1"							2c;			
								4c;			

Pg #2

SAT / SUN

Date 1942 Sep 12/13 Observers T.n. T.E.L. (24" mostly)

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce5070	BIAS (4)								
5071	HD 210839	22 08 07	+58 55	02 11 32		03 42 W			150s
5072	Comp							ThAr	45s
5073	HD 210839			02 38 35					150s
5074	Comp							ThAr	45
5075	HD 210839			03 05 06		04 26 W			1200s
5076	Comp							ThAr	45
5077	BIAS (4)								
5078	Comp for HD 24912							ThAr	45
5079	HD 24912	03 52 20	+35 30	03 33 00		00 52 E			1200s
5080	Comp								45
5081	HD 24912			03 54 38					1200
5082	Comp							ThAr	45
5083	BIAS (4)								
5084 5088	FLATS x5			04 30		02 30 W	+52°		

Spectr. Temp. ..... Dome Temp./Hum. +10.9°C 74.8% Transparency Conditions . Hazy to PART cloudy

Focus ... 2.40 .....

Spectr. Temp. ..... Dome Temp./Hum. +10.4°C 83.2% getting too humid & hazy

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst. Ech	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				echelle CCD	17.97	520m H600m		1ci			
~1500	1"-2"	5.0	061				4600Å	5ci	Fln pgm		
								4ci			
1340	2"-3"							6ci			
1100	2"							7ci			
~~1420~~								4c.			
										Dome T = +10.2C	
4,200	2"	4.04	075 III					2ci	Fln std		
4140								6ci			
						120m wide H 600m slit H		3ci		12K MAX ROW	
							All worked To			Perseus	

25 1.

Date ..Sept.13/M-92.... Observers ....Fbr.(..Tdl.24".). for Flu

Emulsion Batches:
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.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce05089	BIAS(4)								
5090 -5094	FLAT×5							TUNG	12s
5095	COMP							Thor	4s
5096	HD210839	22 08 07	+ 58 55	20 22 34					1800
5097	COMP							ThAr	4s
5098	HD210839			20 55 46					1800
5099	COMP							ThAr	4s
5100	BIAS(4)								
5101	COMP							Thor	4s
5102	HD210839	22 08 07	58 55	21 31 23					1800
5103	COMP							ThAr	4s
5104	HD210839			22 04 30					1800
5105	COMP								
5106	BIAS(4)								
5107 – 5111	FLAT×5							TUNG	12s

Spectr. Temp. ..... Dome Temp./Hum. 15.9°/67.1% Transparency Conditions ..... clear 206

Focus ..... 0.240 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

0 0 256 1024 4 1 90 cycles

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Echelle CCD	17.97		4600Å			Hum = 77.2% @ 1952	
						120μ 800μ } FOR FLATS		4ci			
								3ci			
1700	1"	V 5.0	OGI			120μ 600μ		5ci	Fln	H = 79.6% @ 2057	
1580										Light Cloud	
										Thin Cloud	
1640										Airmass: 1.0648	
1300										Hum: 81.3% T = 13.9°C (2210)	
										Hum = 83.7% (2225)	
										86.1% (2236)	
					All to Bureau/Norm					Too Humid.	

202 Fri Sat — Temp expected to drop fast tonight

Date 1992 Sep 18/19 Observers T.n. [H.K.] → checking byphone

Emulsion Batches: .....

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.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce05112 5113	Focus Test		in Board / out Board			03 25W	+7°05	ThAr	6/4
5114	BIAS (4)			2207		0218W	+12°		
5115 – 5117	FLATS x 3			2213		0224W	"	TUNG	20sec
5118	Comp							ThAr	5sec
5119	HD182572	19 20 12	+11 44	222438		0305W			1602s
5120	Comp							ThAr	5sec
5121	Comp							"	"
5122	HD186791	19 41 30	+10 22	230150		0305W			810s
5123	Comp							ThAr	5sec
5124	BIAS (4)			2319		0310W			
5125 5127	FLATS x 3			2322		0311W	+10°39	TUNG	20sec

Spectr. Temp 2523 ..... Dome Temp./Hum. +18.0°C .74% @ 19 EST Transparency Conditions Cloudy ... clearing ?...

Focus ... ~~2523~~ untouched +16.1°C ; 76% @ 22 EST

Spectr. Temp. ..... Dome Temp./Hum. +14.2°C ; 75% H

CCD FMT for Focus

280 0 30 1024 8 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	90CGain Remarks	Quality
	3 pixel FWHM			echelle CCD	1893	W 60μ H 400μ	4481Å	1c; 0c;	Focus Test	* Xgrating = .4540 4th complete ORDER Down	
Time Now		+16.1°C						1c;		xgrating = .4553	
					W = 60μ H 600μ		for FLATS	3c;		MAX = 9K ADU	
					W = 60μ H = 400μ			4c;	0 0 256 1024 8 1 CCD FMT for OBS starting CCD 5114		
205	>5" OR	5.17 Full Slit	G8 IV Length ++		5004DU Sum Above	Avg of 3 cols Background.		5c;	KK pgm stdvel		
								6c;		CCDT = -101.8°C	
								2c;			
960	5"	2.62	K3 II					7c;	KK stdvel		
	8"							4c;			
								1c;		✓	
					H = 600μ		for FLATS	3c;	All to Perseus = warm.		

209 SAT SUN

Emulsion Batches: .....

Date 1992 Sep 19/20 Observers K.K. / I.T.H. .....

CCD Te −101.9°C and Topy complete By 1410 Nothing altered between 5128–5139

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CE 05128	BIAS(4)			1424		0 0	−21 20°		
5129	FLAT					0 0	"	TUNG	25s
5130	Comp					"	"	ThAr	5s
5131	SKY			14342		"	"		130s
5132	Comp	afternoon				"	"		
5133	BIAS(4)	Sundown		≈1806		"	"		
5134	Comp					"	"		5s
5135	SKY			18 10 36		"	"		976s
5136	Comp					"	"	ThAr	5s
→ 5137 5139	FLATS x3			18 31 47		"	"	TUNG	25s
5140	BIAS(4)	CCD Left −100°C FOR TOUR		22 07 38		2 20W	+12°		
5141	Comp							ThAr	5sec
5142	HD 187572	19 20 12	+11 44	22 08 55		2 54W			1800
5143	Comp							ThAr	5sec
5144	Comp for HD 186791							"	"

Spectr. Temp. ..... Dome Temp./Hum. +15.1°C 18EST Transparency Conditions . MOSTLY Cloudy - PART...

Focus ...2523... ~~unchanged~~ > .2460 @22EST +16 @14EST H=60% @18EST @1430 MOSTLY CLEAR @18EST

Spectr. Temp. ..... Dome Temp./Hum. ..... CLAMBDA 2 TOURS Looked at 1115 (10)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Echelle CCD	Ech 1893	W 60u H 600u	4481Å	1c;		X tilt = .4553	
								3c;		12.4K ADU MAX	
						H 400u		4c;		Right or with 5133 or close	
3300								5c;		Dome Shutters 1/2 open	
								6c;	Remove Switch	Shutters centered with Box directly over doorway	
								1c;		Dome T = +15.1°C	
								1c;	"	(Right with 5136)	
950								7c;		SHUTTERS Dome opened FULLY The only diff between this set and #1 for mercury except exp length	
								2c;			
						W 60u H 600u		3c;			
						W 60u H 400u		1c;	Then Tejeda	@19 EST	
								2c;		@ 35pixel FWHM	
375	2.3"	5.17	G81V					3c;	tk std w/ gym	getting cloudy	
								~~4c;~~			
								4c;			

Dome T = +10.3°C CAMERA Focus → .246 now

~~2.3" 5.17 G81V~~

211 P902 SAT/SUN

Date 1992 Sep 19/20 Observers [K.K.] ... Tn.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CCD 5145	HD186791	19 41 30	+10 22	22 46 51		2 57 W			993
5146	Comp							ThA	5sec
5147	BIAS(4)								
5148	Comp							ThAr	5sec
5149	HD 204867	21 26 18	-06 01	23 12 55		01 52 W			1842
5150	Comp			23 44 24				ThAr	5sec
5151	Comp			23 51 12				"	5sec
5152	HD 222368	23 34 48	+05 05	23 52 26		00 08 W			930
5153	Comp							ThAr	5sec
5154	BIAS(4)			00 11 19		00 10 W	+5°		
5155 5157	FLATS x 3			00 22				TUNG	25
5158	Focus Test	in board						ThAr	5s
5159	Focus "	out board						"	5s

Spectr. Temp. ..... Dome Temp./Hum. +10.2°C ..... 74.8% H Transparency Conditions .. PART. cloudy (thin) ...

Focus .. 2460 ..... → VERY cloudy (212)

Spectr. Temp. ..... Dome Temp./Hum. +10.1°C 76% CLAMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1470	3"	V 2.62	K3III	echelle CCD	18.93	60μ 400μ	4481Å	5ci	KK stl vel	IAU vel -2.1 ± 0.2 km/sec	3K ADU sum AVG of 10 cols. at 4481Å above Background
								4ci			
								1ci			
								2ci			
260	3"	V 2.89	G0Ib					3ci	KK stl vel	IAU vel = +6.7 ± 1 fairly cloudy now	
								4ci			
								6ci		~~(no starting)~~ *	
44*	2"	V 4.13	F7V					7ci	KK stl vel	cloudy not thin-thick	
								6ci		no starting	
								1ci			
					W = 60μ still H = 600μ = .205			2ci		Flats using have starting ↳ MAX 13K ADU/pixel	
	Dome T = 10.4°C set. 2460					60μ 60μ		8ci		27 30 pcols $\frac{27\ 30}{575\ 587}$ plot for 4481Å corp	
	0 0 64 1024 16 1 CONFMT							9ci		OUTBOARD <1 pixel Rel shifted	

Starting (shutter problem) solved by Restarting CS 386

All to PERseus & WORM

pg 3 *

SAT / SUN

Date 1992 Sept 19/20 Observers [kh] T.n

Emulsion Batches: .....

.....

* Complete Reopening including Resetting ccd T back to -100°C

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce05160	BIAS(4) after Resetting to ccdT=-100C			0214					
5161	Comp			021531				ThAr	5sec
5162	HD8890	01 22 33	+88 46	021640		0028E			602
5163	Comp							ThAr	5sec
5164	HD8890			022943					580
5165	Comp							ThAr	5sec
5166	Comp							"	"
5167	HD3712	00 34 50	+55 59	025235		0209W			502
5168	Comp							ThAr	5sec
5169	HD3712			030333		0212W			531
5170	Comp							ThAr	5s
5171	BIAS(4)					0216W	+56		
5172	Comp							ThAr	5sec
5173	HD222368	23 34 48	+05 05	032446		0340W			880s
5174	Comp							ThAr	55
5175 – 5177	FLATS x3			FOR FLATS		0222	+36	TuWG	25

Spectr. Temp. ..... Dome Temp./Hum. +10.3°C 74% Transparency Conditions .. Fair ... gg.in ... (24)

Focus ... 12.460 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 90 CCGAIN 0 0 256 1024 4 1 CCDFMT1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				echelle CCD	18.93 W H	60u 400u	4481Å	1ci			
								3ci		no streaking effect	
2800	3"	1.9	F8Ib					4ci	kk pgm	star off slit before readout [also for rest of stellar OBS]	
								5ci			
3000								6ci	kk pgm	5k ADU ≈ max ADU	
								~~2ci~~			
								2ci			
3300	3"	✓ 2.24	Kolla					3ci	kk stdvel	~4k ADU max	
								~~5cf~~			
3475								5ci			
								3ci			
										Dome T = +10.9°C	
								3ci			
660	2-3"	✓ 4.13	FIV					4ci	kk stdvel		
								3ci			
								2ci		11 k max ADU	

25 pg #1 sun/mon

some frames reduced

Emulsion Batches:

Date 1992 Sep 20/21 Observers [K.K.] T.A.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce05178	BIAS(4)			1928		≈ 0 0	+39		
5179	Comp			1931				ThAr	5sec
5180	HD 182572	19 20 12	+11 44	193240		0021 W			1800
5181	Comp							ThAr	6sec
5182	Comp	comp times changed to		200649 3secs 5secs s/strong ⇒ some saturatn.				ThAr	3sec
5183	HD 186791	19 41 30	+10 22	200809		0021 W			955
5184	Comp							ThAr	3s
5185	Comp							"	3s
5186	HD 204867	21 26 18	−06 01	203017		0057E			1248
5187	Comp							ThAr	3s
5188	BIAS (4)					0056E	−6°		
5189	Comp							ThAr	3s
5190	HD 222368	23 34 48	+05 05	210131					655
5191	Comp							ThAr	3sec
5192	HD 222368			211912		0707E			1800

Spectr. Temp. ..... Dome Temp./Hum. +14.4°C 66.9% Transparency Conditions . PART cloudy .....

Focus ..... 2460 Tel encoder NORMALIZATN STAR BS 7298 19 13 30 +39 07 58 1992.5 ep

Spectr. Temp. ..... Dome Temp./Hum. ..... C LAMBDA 90 GAIN CCD T → -100°C 216

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Ech Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks (5000 Å Blaze)	Quality
				echelle CCD	18.93	60u 400u	4481 Å	1ci	[600 l/mm	X grating .4553]	
								3ci			
450	1-2"	V 5.17	G8 IV					4ci	kk stdvel	≈ 2 K 40 u sum AVG of 10 cols @ 4481 Å above bk gnd. (290/1 S/N)	
								5ci			
		V ~~2.62~~	~~K3 II~~					5ci			
1890		V 2.62	K3 II					6ci	kk stdvel	[≈ 6 K 40 u sum AVG of 10 cols above bk gnd at 4481 Å]	
								2ci			
								3ci			
720	2"	V 2.89	G0 Ib					3ci	stdvel kk	cloud increasing	
								7ci			
								1ci		Dome T = +14.0°C	
								2ci			
* 18	<2"	V 4.13	F7 V					5ci	stdvel	FOR CHALLENGE Reduction But cloudy CURTAILED But kept * ≈ 20/1 S/N	
								7ci			
325	<2"							3ci	stdvel	[2K sum AVG] Visible on guider anyway	

27 pg#2

Emulsion Batches:

Date 1992 Sep 20/21 Observers [K.H] T.n Hdy checking But too cloudy for Him!

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce05193	Comp for previous STAR							ThAr	3sec
5194	HD222368	233448	+0505	215216		0144E			1200s
5195	Comp							ThAr	3sec
5196	BIAS(4)								
5197	Comp							ThAr	3sec
5198	HD 3712	003450	+5559	222048	3 22 30 **	0727E			539
5199	Comp							ThAr	3sec
5200 5204	FLATS x5					0000	+0335	TUNG	25s
5205	BIAS(4)					"	"		

Spectr. Te
Focus....
Spectr. Te

Exp. Mtr
170
538
539

Spectr. Temp. ..... Dome Temp./Hum. +13.7°C 72.0%H Transparency Conditions . Hazy To cloudy .....

Focus ....2460.....

Spectr. Temp. ..... Dome Temp./Hum. +13.8°C 76.3% Thick cloud AT 22 30

218

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Ech Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				echelle CCD	18.93	60u 400u	4481Å	7ci		600 ln/mm CROSS 4553.	
170	<2"	V 4.13	F7 V					4ci	kk stable	3rd exp cloud again	
								7ci		comp OK still (no streaks)	
								1ci	Dome T = +13.2°C H = +74.0%		
								2ci		H=74.8% Comp OK still	
938	<2"	V 2.24	K0 III a					3ci	kk stable	H=75.1% @ 2226 kk switch clunked too	
								7ci	Comp OK after all		
						W 60u H= 600u		7ci		13k max 404	
								1ci			
			All	To Perseus, WORM, & exabyte							

2nd Wed

Date 1992 Sept 23 Observers KK

Emulsion Batches: .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CE 5206	Hartmann IN		+30°			2W		ThA	5s
5207	Hartmann OUT							"	
5208	Hartmann IN		+65°			1W		"	5s
5209	Hartmann OUT							"	
5210	comparison		+65°			1W		ThA	10
5211	sky		"	12 16		"			74s
5212	comparison							ThA	10s
5213	bias 4X								
5214	Comparison								
5215	sky								
5216	comparison								
5217	sky								
5218	comparison								
5219	sky								
5220	Comparison								

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus 0 0 256 1024 4 1 220

Spectr. Temp. ..... Dome Temp./Hum. ..... − 100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5s					18.93	60μ			9.6°C		
					.4554					shift −0.16 pixel	81
5s											training on three
										shift −0.19 pixel	
10									std vel		
3s	1000										
10s											

VR p. 2

Date 1992 Sept 23 cont Observers KK

Emulsion Batches:

Plate No.	Object	R.A. ~~1900~~	Declination ~~1900~~	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CE5221	sky					1h W			120s
5222	comparison							ThA	10s
5223	sky								120s
5224	comparison							ThA	10s
5225	sky								120s
5226	comparison							ThA	10s
5227	sky	12 03 30 (1992.8)	−00 21 00	18 37 36		1h W			203s
5228	comparison							ThA	10s
5229-33	flats								
dark-e1, e2, e3 (1h darks at −120°C) dark-eØ bias									

Spectr. Temp. ..... Dome Temp./Hum. +10.2C ... +43.2% Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

222

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
									std vel		
3000										max 8500 ADU	
						60 x 400					
						60 x 600					

Date ..Sept. 23/24 -92.. Observers .Fbr. (Bhrm.).....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ceO 5234	Bias (4)								
5235	Comp							ThAr	3s
5236	HD 186791	19 41 30	10 22	20 12 29		044 W			1351
5237	Comp							ThAr	3s
5238	Comp							ThAr	3s
5239	HD 204867	21 26 18	-06 01	204557		028 E			1299
5240	Comp							ThAr	3s
5241	Comp							ThAr	3s
5242	HD 222368	23 34 48	05 05	212403		153 E			1713
5243	Comp							ThAr	3s
5244	Bias (4)								
5245	Comp							ThAr	3s
5246	HD 3712	00 34 50	55 59 00	221725					189
5247	Comp								
5248	Comp							ThAr	3s

Spectr. Temp. ..... Dome Temp./Hum. 8.5°C/52.5% Transparency Conditions ..... CLEAR (AND COLD!)

Focus ..... 2.2451 ..... (1930)

Spectr. Temp. ..... Dome Temp./Hum. .....

90cgain ccd T → -100°C 224

NORMALIZE BS7298 0 0 256 1024 4 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				ECHELLE CCD	18.93 .4554	60μ→W=.277 400μ→H=.225			λ=4481Å	WHERE IS HD 182 572	
								3ci		POOR SEEING.	
1900	2"-3"	V 2.62	K3II					4ci	STD VEL (KK)	AIRMASS=1.2015 6K ΣAVG.	
								3ci			
								3ci			
900		V 2.89	?					5ci	KK (STD)	5600 ΣAVG	
								3ci			
								3ci		T=6.3°C H=58.4% (2.15) AIRMASS=1.5002	
400		V 4.13						6ci	KK (STD)		
								3ci			
								1ci			
								3ci			
1000		V 2.24						7ci	KK (STD)		

V402 (92-09)

Date Sept 23/24-92 Observers Fbr (Bhrm)

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
5249	HD 3712	00 34 50	55 59	23 01 30		01 40E			25s
5250	Comp							THAr	3s
5251	Bias (4)								
~~5252~~	~~Comp~~							THAr	3s
2nn	~~HD 8896 1 1 02 22 23~~		~~8896~~						
5252	FLAT							TUNG	25s
5253	FLAT							"	"
5254	FLAT							"	"
5255	FLAT							"	"
5256	FLAT							"	"

Spectr. Temp. ..... Dome Temp./Hum. ...5.9°C/57% Transparency Conditions .....CLEAR.....2½..
(2300)

Focus .....~~0.~~245!.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Bhrm left @ ~2300 (T=6.1°C)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1200	2"	V x 24		GENELLE CCD	18.93 .4554	60μ	λ=4481 Å	7ci	KK (STD.)	AIRMASS = 1.0667 5600 ΣTAVG	

TRIED FOR POLARIS.

LOST ENCODERS! (NO BACKUP.)

[H = 600μ = 0.205
W = 60μ = 0.277]

FLAT MAX > 13K

ALL TO PERSEUS AND WORM

22 21 Thurs Fri

Date 1992 Sept 24/25. Observers [Fe] Tn/Fbr

Emulsion Batches: .....

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OBS R.A. Time was 3 mn behind at start. Reset before 9809.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC9805	BIAS(4)			1852		0 0	+39°		8
9806 9807	Focus Tests					0 0	+39°	FeAr Clear	5/5
9808	Comp							"	60sec
9809	HD 148283	16 32 27	+38 10 16	19 26 02		03 02W			761
9810	Comp							FeAr Clear	60sec
9811	HD 148283			19 49 26		03 56W			25 16s
9812	Comp							FeAr Clear	60sec
9813 9815	FLAT x3					04 02W	+38°	Tung Clear	15sec
9816	BIAS(4)					"	"		
9817	Comp							FeAr Clear	90sec
9818	HD 203156	21 5 23	+37 49'	21 01 26		0009E			60s
9819	Comp							FeAr Clear	90sec
9820	"							"	"
9821	HD 198726	20 47 13	+37 52 30	21 32 07		0047W			444
9822	Comp							FeAr Clear	90s

Spectr. Temp. ..... Dome Temp./Hum. +104°C 584% Transparency Conditions ... Fine ... 28

Focus ... 6.81 ... Note All guiding at visitors Eyepiece

Spectr. Temp. ..... Dome Temp./Hum. ..... Tel Normalized on Vega CCDT → -100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CCD	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm G=4900	200μ Full Length	5010Å	1c;		480 0 50 1024 4 1	CCDFast
								3c;	Stellar USI	860 0 12 1024 40 1	CCDFast
								4c;	Red shifted.	10.3°C Set 681	
								5c;			
164	2"	V 8-9	F8I					6c;	Fe pgm	150 ADU Sum Avg above bkgnd. Lost star eyepiece view difficult.	
								7c;			
~1000								8c;	Fe pgm		
								9c;		Image Lowin Y on CCD	
								10c;		MAX 14.8K ADU	
								1c;		Room T = +88°C	
					1800 l/mm G=5930Å		6450Å	12c;			
5980	2"	V 5.8 -5.9	F2					13c;	Rm pgm	GC in photons 10 cts 14K ADU Sum Avg above bkgnd.	
								~~14c;~~			
								14c;			
7470	2"	V 5.75	GOIb					15c;	Rm pgm	16K Sum Avg ADU of 10 cts	
								16c;			

229 pg#2

Date 1992 Sep 24/25 Observers [Rm] Tu / Fbt

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD 9823	BIAS(4)								
9824	Comp							FeAr Clear	90s
9825	HD214975	223655	56 1824	215520					2103
9826	Comp							FeAr Clear	90s
9827	BIAS(4)								
9828	Comp			224156				FeAr Clear	90s
9829	HD3712	00 3450	+55 59 00	224545					30
9830	Comp							FeAr Clear	90s
9831	Comp							"	90s
9832	HD182572	19 20 12	+11 44	23 11 55		0350 W			201s
9833	Comp							FeAr Clear	90s
9834	Comp							"	7
9835	HD186791	19 41 30	+10 22	232545					46s
9836	Comp							FeAr Clear	90s
9837	Comp							"	9

Spectr. Temp. ..... Dome Temp./Hum. 18.2°C 69.3% Transparency Conditions ... Fine 23.0

Focus ... 6.81 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... C LAMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800l/mm G=5930	200u Full	6450Å	1c;			
								17c;			
4080	2"	V 8.4	G0Ib					18c;	RM pgm	T=8.1°C / HUM = 70%	
								19c;			
								1c;		Dome T = +8.1°C	
								20c.			
5290	2	V 2.24	K0 III$_a$					21c;	Std vel	MDM 9m 4/04	
								22c;	grating wheel disabled in order To do Reset of Sp Controller		
3600	3"	V 5.17	G8 IV					23c;	Std vel		
								24c;			
								25c;			
7730		V 2.62	K3 II					26c;	std vel	16k pm 4/04	
								27c;			
								28c.			

23 pg #3

Date 1992 Sept 24/25 Observers [Rm] ... Fbr./Tm .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD 9838	HD 204867	21 26 18	-06 01	233721		0206 W			69
9839	Comp							FeAr Clear	90s
9840	BIAS (4)			234048		"			
9841	Comp							FeAr Clear	90s
9842	HD 222368	23 34 48	+05 05	235649					200
9843	Comp							FeAr Clear	90s
9844	BIAS (4)								
— 9845 9849	FLATS x5			00 16		03 W	+38°	TUNG A=1/2	
9850	Comp							FeAr Clear	90s
9851	HD 203156	21 15 23	+37 49	002459		03 16 W			617
9852	Comp							FeAr Clear	90s
9853	BIAS (4)								

Spectr. Temp. ..... Dome Temp./Hum. 17.8°C 72% Transparency Conditions FINE 232

Focus ... 6:81 .....

Spectr. Temp. ..... Dome Temp./Hum. 17.7°C 77% CLAMBOX

All But stars taken off slit Before Readout Actually All Exps were.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
8220		2091	GOII	CASS CCD	1800 l/mm	200μ FULL	6450Å	29c;	Stdvel	Also, All expose Started Before star Right on SLIT	
								30c;			
								K;			
								31c;			
10000		413	F7V					32c;	Stdvel	H=78.890 (2354) T=7.82 5200 MAX ADU	
								33c;			
									None	T=+8.0°C	
								34c;		MAX ADU 12.6K 104	
								35c;			
6070	2"							36c;	Rm pgm	11K SUM ADU	
					All to worm a			37c;	PERSEUS		
								1c;			

23 #1 Fri-Sat

Date ..Sept. 25/26. 92... Observers ...Tn/Fbr.../(Service).

ERI-SAT

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9854	Bias (4)			Note Comp & FLAT Source Aperture Stop noticed to					
cc 09855	Comp							FeNr Clear	90s
9856	HD162714	17 47 7	-06 07 12	19 08 33		01 29 W			603s
9857	Comp							FeNr Clear	90s
9858	Comp							"	"
9859	HD173297	18 39 20	-20 45	19 31 44		01 22 W			1924
9860	Comp							FeNr Clear	90s
9861	~~HD20315~~ Comp							"	"
9862	HD 203156	21 15 23	+37 49	20 16 34		00 47 E			766
9863	Comp							FeNr Clear	90sec
9864	Comp							"	"
9865	HD177724	19 00 49	+13 43	20 44 19		1 45 W			153
9866	Comp							FeNr Clear	90sec
9867	Comp							"	"
9868	HD182572	19 20 12	11 44 00	20 56 56					206
9869	Comp							FeNr Clear	90sec

Spectr. Temp. ..... Dome Temp./Hum. T=11.4°/H=64.6% Transparency Conditions ... SI Cloudy ... 23¼

Focus ... 6.8.1 ... (1930)

Spectr. Temp. ..... Dome Temp./Hum. ..... CCD T=-100°C

CHAMBER Still Visual Guiding 90 cgain

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Be "OUT" next night) Tu Sept 27				CHSS CCD	1800 α=5830 Full Length	200μ	6450Q				
								5ci			
3500	2⅔	V 6.15	GoIb					6ci	Rm pgm	12K Σ Hug → over 10 cobs	
								7ci			
								8ci			
1494		V 7.48	GoIb					9ci	Rm Pgm	4200⟨Σ⟩ (Sum Avg)	
								10ci			
								11ci		T=10.7°C HUM=67.2% AIRMASS=1.0248	
6777	2"	V 5.8-5.9	F2					12ci	Rm Pgm		
								13ci			
								14ci			
9700		V 2.99	AOV					15ci	To Hyak Std	~3K Max AOV.	
								16ci			
								17ci			
2315		V 5.17	K3III					18ci			
								19ci			

#2 Fri-Sat

Date ..Sept 25 26-92.... Observers ...Tn | Pbr (Service)..

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9870 – 9874	FLATS X5	19 20 12	11 40					TUNG λ=1/2	10s
		* WAVELENGTH CHANGE TO λ=6563Å							
9875	BIAS (4)								
9876	Comp							Fe/Ar Clear.	60s
9877	Nova Cyg 92	202743	521739	21 25 22		01 06 W			440s
9878	Comp							Fe/Ar Clear	60s
9879	Nova Cyg 92	20 2743	52 1739	21 37 48					1347
9880	Comp							Fe/Ar Clear	60s
9881	~~Comp~~	BIAS (4)						"	"
9882	~~HD177724~~ Comp	~~19 00 49~~	~~+13 43~~	~~22~~				Fe/Ar Clear	60s
9883	HD177724	19 00 49	+13 43	22 26 52					735s
9884	Comp							Fe/Ar Clear	60s
9885	Comp							"	60s
9886	HD182917	19 21 54	50 02	22 49 04		03 31 W			200
9887	Comp							Fe/Ar Clear	60s

Spectr. Temp. ..... Dome Temp./Hum. 10.9°C / 70.1% (2100) Transparency Conditions .... PTLY CLOUDY I36

Focus ..... 6.81 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

CCD T = -100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 a=5930	200 μ	λ=6450Å	20ci			
					1800 a=6020	200 μ	λ=6563				
								21ci		CLOUD MOVING IN...	
175				CASS CCD	1800 a=6020	200 μ	λ=6563	22ci	NOVA PAM	AIRMASS = 1.0220	
								23ci		2400 ADU MAX e H2	
414	2-3"	≈9						24ci	NOVA PAM	cloudy	
								25ci			
								~~26ci~~ 1ci		Dome T = 4104°C	
		✓ ~~2.49 ADU/nm~~						~~26ci~~ 27ci	~~Telluric Std~~	cloudy	
20K	4"	✓ 2.49	40U/nm					27ci	Telluric Std	4600 ADU MAX	
								28ci			
640	2"	7.4-9.1	NO					29ci	CH CYG Obs pgm	MAX 3000 ADU	
								30ci			

#3 Fri - Sat

Date 1992 Sep 25 26 Observers ... T. J. Fbs.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
~~CC09886~~	~~HD182917~~	~~19 21 54~~	~~+50 02~~	~~22~~						
CC09888 9892	FLATS x 5					03 45W	+5016	Tung H=1/2	10s	
9893	BIAS(4)									
9894	Comp for PU Vul							Fe Ar Clear	60s	
9895	PU Vul	20 16 48	+21 15	23 52 30		03 49 W			860	88
9896	Comp							Fe Ar Clear	60s	
9897	Comp							"	"	
9898	BM Cas ~~BD+63 101~~	00 48 36	+ 63 33	00 16 43		00 27E			450	450
9899	Comp							Fe Ar Clear	60s	
9900	BM Cas	00 48 36	+63 33	00 29 37					1400	875
9901	Comp							Fe Ar Clear	60s	
9902	BIAS(4)						+64°			
9903	Comp							Fe Ar clear	60s	
9904	HD203156	21 15 23	+37 49	01 04 24		03 53W				2300
9905	Comp							Fe Ar Clear	60s	

Spectr. Temp. ..... Dome Temp./Hum. +10.5°C 72% Transparency Conditions ... Mostly Cloudy .....

Focus ..... G.81 .....

Spectr. Temp. ..... Dome Temp./Hum. +10.1°C 80%

238

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	2"	29	Mb	CHBS CCD	1800 G 6020	200μ Full	6563Å		CHCYG	cloudy	
										MAX 12K ADU/pixel	
										Dome T = +10.5°C	
								33ci			
88		VV Faint						34ci	Em object	A challenge! PARTCLOUDY got it! 4000 ADU MAX MASSIVE Hα em	
								5ci		(0015) T: 10.3°C/H: 76.5%	
350	2"	V ~~8.9~~						~~4c.~~	BM Cas	MAX 1500 ADU	
								~~7~~ci			
875	2"	V 8.8 -9						6ci			
								8ci			
								1ci		T=10.1°C	
								10ci			
2900	2" 3	V 8.8 -5.9	F2					9ci	Em pyn		

23? #4

Date 1992 Sept 25/26 Observers F.Br. T.H.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
C09906	Comp							FeAr Clear	60s
9907	HD 217675	22 57 19	+41 47	01 19 09		02 23 W			100
9908	Comp							FeAr Clear	60s
9909	Comp							"	"
9910	HD 14306	02 14 18	-03 26	01 30 53					250
9911	Comp							FeAr Clear	60s
9912	Comp							"	"
9913	HD 23862	03 43 18	+23 51	~~01 50 35~~ 02 04 13		01 39 E			100s
9915	Comp	(Out of ORDER with Hilger by + OK)						FeAr Clear	60s
9914	Comp							"	"
9916	HD 222368	23 34 48	+05 05	02 18 45					155s
9917	Comp							FeAr Clear	60s
9918	B/HS (4)								
9919 - 9923	FLST x 5	at HD 222368 pos						A-F Twilight	10s

Spectr. Te
Focus...
Spectr. Te
Exp Mtr

Spectr. Temp. ..... Dome Temp./Hum. +10.1°C ... 80.5% Transparency Conditions .. P.C.P.T. Cloudy .....

Focus .... G & L .....

Spectr. Temp. ..... Dome Temp./Hum. +10.0°C .. 86% 240

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm G=6026	200μ Full	6563Å				
14610		V 3.63	B6p					12c;	○ And	5800 MAX AOU.	
			B					13c;			
								14c;			
4260			M5.5 III e - M9 III e					15c;	MiRA	Cloudy 11K AOU MAX	
								16c;			
								17c;		Hem = 94%	
4650	<2"	V 5.09	B8V pe					18c;	Pleiane	9K MAX @ Hα	
								19c;			
								21c;			
7930		V 4.13	F7V					25c;	Stdbel		
					All to Rosen + WORM					MAX 11K AOU	

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SAT Sun

Date 1992 Sep. 26/27 Observers J.n. T.e.s.t.s

Emulsion Batches:

Comp stability in Pgm. Tests (not much shift seen)

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC09924 9925	Focus Test			21 43		0 0	-16 04	FeNe A=1/2	8/8
9926	BIAS(4)			21 46					
9927	Comp			21 51				FeNe A=1/4	8
9928	Comp			22 20 43	ST of START 22 27 40	0 0		"	"
9929	"			22 55 48		"		"	"
9930	"			23 26 04				"	"
9931	"			00 11 44				"	"
9932	"			00 48 03				"	"
9933	"			01 26 38				"	"
9934	"			01 32 45				"	"
9935	"			01 57 04		0 0	+27 00	"	"

Spectr. Temp. ..... Dome Temp./Hum. +13.9°C 90% Transparency Conditions 2½

Focus .... 6:70 .....

Spectr. Temp. ..... Dome Temp./Hum. +13.7°C 90%

CCDT at Bottom ≈ -120°C

575 0 30 1024 1 1 CCDFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G-5950 1800l/mm	Pinhole	6470Å	3/4		Stellar uvi/Red st A.	
								1c;			
								5c;		13 15 pcols. 299-300 x Dist	
								6c;			
								7c;		~~going East slightly~~ going blue slightly	
								8c;			
								9c;			
								10c;			
								11c;			
								12c;			
								13c;		~~About [illegible] 12c;~~ ~~Before Taping Start~~ ~~ONLY at position of 12c;~~	

Note Nothing moved OR Touched during this Set, only Tu in Dome.

I noticed that source Aperture Stop was out when closing.

MAY have been out previous night too

2.42p 1 Sun/Mon

Date 1992 Sept 27/28 Observers Hdy / Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc 09936	BIAS(4)			18 41 03		0 0	+39°		
9937									
9938	Focus.	Comp/Stellar Hartman posn				"	+39°		
9939	Comp							FeHr Clear	60s
9940	HD 216598	22 49 06	+37 23	19 08 22					513
9941	"	"	"	19 18 31					460s
9942	"			19 26 38					462s
9943	"			19 35 14					460
9944	"			19 43 13					"
9945	"			19 51 11					"
9946	BIAS(4)								
9947	Comp			20 00 19		0 2 42W	+37 53	FeHr Clear	60s
9948	FLAT							TUNG A=1/2	10sec
9949	FLAT at HD 177724 posn							"	"
9950	Comp							FeHr Clear	60sec
9951	HD 177724	19 00 49	+13 43	20 10 27					133s
9952	Comp							FeHr Clear	60s

Spectr. Temp. ..... Dome Temp./Hum. +14.9°C 62% Transparency Conditions Fine - Slhazy 24.4

Focus 6.70

Spectr. Temp. ..... Dome Temp./Hum. .....

Tel Normalized on Vega, but need to Renormalize*

536 0 26 1024 4 1 ccdfmt 90CGAm

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 G=5525	250μ POINTER	5890 Å	1		NOW USING POINTER DEKKER SLIT IS SLIGHTLY SHORTER	
Set = 6.70 T = 15.0°C								3/4	VV Sl Red for Stellar posn.		
		✓						5			
360	3"	8.51 - 9.34	G8 ✓					6	Hdy pgm	1000 ADU Scan AVG of 5 cols ea Sky bkgnd.	
300								7			
270								8		* Renormalized Telescope to this STAR	
270								~~9c~~		Repeat STAR 460s x 3	
255								~~9~~			
180								9c			
								1c		Dome T = +14.9°C	
								10c			
								11c		MAX ADU/pixel = 12.4 K	
								12c			
								~~13c~~			
16 K		✓ 2.99	AO ✓ mn		guided			14c	Telluric Std	9 K max ADU	
								13c			

245 pg #2 Sun mon

Date 1942 Sept 27/28 Observers Hdy 24" / J.T.s

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC09953	Comp							FEAT CLAR	60sec
9954	HD 216598	22 49 06	+37 23 00	20 22 49					483
9955	"			20 31 31					460
9956	"			20 39 30					
9957	"			20 47 28					
9958	"			20 55 27					
9959	"			21 03 26		01 40E			
9960	"			21 11 24					
9961	BIAS(4)								
9962	Comp							FEAT CLAR	60sec
9963	FLAT							TUNG A=1/2	10sec
9964	BIAS(4)								
9965	Comp						A=1/2	FEAT ~~CLAR~~	60sec
9966	HD 177724	19 00 49	+13 43	21 31 50					126
9967	"			21 34 41				FEAT CLAR	
9968	Comp								50

Spectr. Temp. ..... Dome Temp./Hum. +13.7°C 67.7% Transparency Conditions ... Fine 246

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLIMBDU

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		✓		CHSS CCD	1800/b/mm G:5525	250µ Pointg	5890Å	15ci			
250	2"	8.51 -9.39	G8V					16ci	Hdy pyr		
325								17ci		Repeat STHR 460s. BAT x6	
370											
375	3"										
420											
435											
450								17ci			
								1ci		Dome T = 12.6°C	
								18ci			
								19ci			
								1ci		Dome T = 12.6°C	
								20ci			
21K		✓ 2.99	AOV					21ci	Telluric Std	12AK MAX ALT	
24K								22ci	"		
								23ci			

pgt 3

Date 1992 Sept 27/28 Observers Hely... T.G.... MKT... briefly

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc09969 9971	FLATS x 3	at HD177724 posn						Tung H=1/2	10s
9972	BIAS(4)								
9973	FLAT	at HD216598 posn						Tung A=1/2	10s
9974	BIAS(4)								
9975	Comp							FeA Clear	60s
9976	HD216598	22 49 06	+37 23 00	21 58 06		00 37E			462
9977				22 07 08					460
9978				22 15 06					~~460~~
79				22 23 04					460
80				22 31 04					"
81				22 39 02					"
82				22 47 01					"
83	BIAS(4)								
84	Comp							FeA Clear	60s
85	FLAT							Tung A=1/2	10s

Spectr. Temp. ..... Dome Temp./Hum. +12.7°C 70% Transparency Conditions ... Fine 248

Focus ... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. +11.7°C 73%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G 5525	250μ	5890Å	24c		12K max ADU	
								1c			
								05c		12.4K ADU max	
								1c		Dome T = 12.4°	
								26c			
400	3"-4"	✓ 8.51 – 9.39	G8 ✓					27c	Holy Prgm		
500								28c		STAR 460S, BAT x 6	
500											
510											
450											
495	3-5"										
450								28c			
								1c			
								29c			
								30c			

249 pg#4

Date 1992 Sept 27/28 Observers Hdy/Jn ... tmki

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc09986	HD216598	22 49 06	+37 23 00	22 59 21		00 24W			460
87				23 08 02					460
88				16:00					"
89				23:58					"
90				31:57					"
91				39:56					"
cc09992				47:54		01 14W			"
93	BIAS(4)								
94	FLAT							TUNG A:1/3	10sec
95	Comp							FEA Clear	60sec
96	HD216598	22 49 06	+37 23 00	00 05 31		01 31W			460
97				00 13 44					"
98				00 21 43					"
99				00 29 41					"
cc10000				00 37 40					"
01				00 45 39					"

Spectr. Ter
Focus ... 6
Spectr. Ter

Exp. Mtr
460
460
350
310
318
263
377
315
315
380
460
460
315

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .. FINE ..... 2.0 ..

Focus .... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. 11.3°C ... H= 70%
c 24m BDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400	3"		G8V	CASS CCD	1800 l/mm G=5525	250u	5890	31ci	Hdy pym	* add 4 exposures?	
410								32ci	"	Repeat x 6 for #6	
300									"		
310									"		
248									"		
263									"		
277								32ci		Hdy/a OK	
								~~33~~ci			
								33ci			
								34ci			
315								35ci			
315								36ci		Repeat x 6	
380								"			
450								"			
400								"			
395								"			

21 Pg #5

Date 1992 Sep 27/28 Observers Hdy Jn Mki

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC10002	HD216598	22 49 06	+37 23	00: 53:38					460
03	BIAS(4)								
04	Comp							FeAr Clear	60s
05	FLAT							TUNG A=1/2	10s
06	HD216598			01 06 37					460
07	"			01: 14:36					
08	"			22:35					
09	"			30:33					
10	"			38:32					
11	"			46 31					
12	"			01 54 29		03 20W			
CC10013	BIAS(4)								
14	FLAT							TUNG A=1/2	10s
15	Comp							FeAr Clear	60s
16	HD216598			02 06 35					505
17	"			02 15 39					460

Spectr. Temp. ..... Dome Temp./Hum. +11.1°C 76% Transparency Conditions ... Fine 252

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
470								36ci			
								15ci			
								12ci		MAX = 11K ADU	
456								16ci		Repeat x 7	
508											
484											
530											
480											
Sum of 2											
1110	2"							16ci			
								1ci		Dome T = +10.4C	
								19ci		11K ADU/pixel	
								18ci			
550								17ci			
518								20ci		Repeat x 6	

SMPG #6 → 24"

Date 1992 Sep 27/28 Observers Hdg ... TH

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC 0018	HD216598			02 23 37		03 50W			460s
19				31 36					
20				39 35					
21				02 47 34					
22				02 55 32		04 22W			
23	BIAS(4) Average of 4 Bias								
24	Comp							FeAr Clear	60s
25	FLAT							TUNG A=1/2	10s
26	HD216598	22 49 06	+37 23	03 08 41					460
27				03 16 55					
28				03 24 53		04 51W			
29				03 32 52					
30				03 40 51					
31				03 48 49		05 16W			
32				03 56 48					
33	BIAS(4)								

Spectr. Temp. ..... Dome Temp./Hum. +10.1°C 75% Transparency Conditions Fine 25.4

Focus 6.70 still

Spectr. Temp. ..... Dome Temp./Hum. ~~.....~~ 5360 26 1024 4 1 CCOFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
570									Hdg pgm		
570											
495											
475											
460	2.3"							20c;			
								1c;			
								23c;		Fine	
								24c;			
360	2"							21c;			
sum of 2								25c;		Repeat x6	
600										CCDT -10.8°C	
260										1.734 AIRMASS	
280											
290											
345											

Sep 47

Sept

Date 1992 Sep 27/28 Observers Hdy T.L.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC10034	FLAT							TUNG H=1/2	10s
35	Comp							FeAr Clear	60s
36	HD 216598			040923		05 37			46
37				041732					460
38				042530					"
39				043329					"
40	BIAS(4)								
41	Comp	Drive off now				06 00	+37 55 51	FeAr Clean	60s
42	FLAT							TUNG H=1/2	12s
43 46	FLATS x4	at α Leo posh						"	13s
47	Comp							FeAr Clean	60s
48	BIAS(4)								
49	HD87901	10 03 03	+12 27	050550					10s
50	"	"	"	051036					108
51	"	"	"	051437					47
52	comp							FeAr Clear	60s
53	BIAS(4)								

Spectr. Temp. ..... Dome Temp./Hum. +9.5°C..78.5% Transparency Conditions ...Fine..... 25

Focus ....6.70.....

Spectr. Temp. ..... Dome Temp./Hum. +8.7°C..82.9%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
							5890Å	30ci			
								2ci		11K MAX ADU	
340								~~27ci~~			
370								~~27ci~~	Hdy pgm	2.075 AIRMASS	
360	2"-3"										
360								27ci		2.250 AIRMASS	
										Dome T = +9.5°C	
								10ci			
	This Flat 12secs to get = same Level as OTHERS							11ci		12.4K ADU	
	" " 13secs " " " "						"	12ci		12.4K	
								13ci			
								1ci		~~5K ADU MAX~~	
30K								16ci	Telluric Std	2.850 AIRMASS	
50K								17ci	"	9K ADU	
58K								~~37~~ ~~38~~ ci	"	2.55 AIRMASS ATEND.	
									Comp		
								1ci	13145		

Log #1 Mon - Tues

Date 1992 Sept 28/29 Observers Hdg. J.n.

Emulsion Batches:

reset CSS TIME was OUT 1 min

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC10054	B/HS(4)								
55	Comp							FeAr Clear	90sec
56	HD177724	19 00 49	+13 43	185543					130
57	"			185848					194
58	"			190054					204
59	B/HS(4)								
60	Comp							FeAr Clear	90s
61 64	FLATS x4							TUNG A-1/4	24s
65	FLAT at HD216598 pos'n			192648				"	24s
66	B/HS(4)								
67	Comp							FeAr Clear	90s
68	HD216598	22 49 06	+37 23	193538		02 55 30E			460
69	"			194405					460
70	"			195225					"
71	"			200027					"
~~72~~	"			~~200820~~					"

Spectr. Temp. ..... Dome Temp./Hum. 12°C 60% Transparency Conditions .. Part. Cloudy 258

Focus ..... 6.70 ..... Complete Cloudy by 2010

Spectr. Temp. ..... Dome Temp./Hum. +11.2°C 64% CLEAR BDA 90 CG4in

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm	250	6563Å	1c		CCD FINT 536 0 26 10244	1
								3c			
37K								4	Telluric Std	MAX 6K	
40K								5	"	" 8K	
44K								6	"	" 8K	
								1			
								.			
								7		12K MAX 4Dc1	
										Dome T = +11.6°C	
								3c			
370	3"	V 8.51 -9.39	G8V					4c	Hdy pgm	650ADU EAVG of 5 cols above bkgnd	
412								8c			
510								9c1		Repeat x 3	
260											
								9c	Call Hris ~~& shutter open Dmpk (Dome Closed)~~		

pg # 2 Mon - Tues

Date 1992 Sept 28/29 Observers Hdg - Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC10072 ~~CC10073~~	~~DARKS x 2~~	Comp		20 17 16				FeAr Clear	~~40s~~
CC10073		FLAT.						Tung A=1/4	24s
10074		BIAS(4)							
10075				20 24 34					
10076	DARKS x 2			20 35 34					600s
10077	BIAS(4)			21 09 40					
10078	FLAT							Tung A=1/4	24s
10079	Comp							FeAr Clear	90s
10080	HD216598	22 49 06	+37 23	21 23 02					460
10081	"			21 31 12					462
10082	"			21 40 29					489
10083	"			21 49 49					460
10084	"			21 58 00					460
10085	"			22 06 18					460
10086	Comp							FeAr Clear	90s
10087	Flat							Tung A=1/4	24s
10088	BIAS(4)								

Spectr. Temp. ..... Dome Temp./Hum. +11.3 61.9 Transparency Conditions ... Cloudy ... 260...

Focus ... 670 ... Clear again SORT OF

Spectr. Temp. ..... Dome Temp./Hum. ..... High Winds

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						250 ~~dekker~~	6563Å	9c;			
								~~10c;~~			
								1c;			
								~~11c;~~ 12c;			
								1c;		Disc closed Temp = +11.7C	
								10c;			
								~~13c;~~			
447								14c;	Hdy pgm	1.035 AIR MASS	
325	3"-4"		G8V					15c;		500 ADU Σ AVG	
470								16c;		1000 ADU Σ TRAILED	
493								~~17c;~~			
466								~~17c;~~			
360								17c;			
10150								18c;			
11303 ADU											

26' Sq #3 Mon - Tues

Date 1992 Sept 28/29 Observers Hdy - Tm

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC10089	HD216598	22 49 06	+37 23	22 19 56					351s
CC10090									
91	Comp / Stellar posn Hartmann Test			22 39		0 0	+30	Fear Clear	40/480
92									
93	"	"	" "	22 50		"	"	"	"
94	BIAS(4)			23 25					
95	Comp			23 37 49				Fear Clear	90s
96	FLAT							TUNG A=1/4	24s
97	HD216598	22 49 06	+37 23	23 35 21					460
98				23 43 28					"
99	Comp							Fear Clear	90
CC10100	BIAS(4)								
101	HD216598			00 01 01					460
102	"			00 09 16					460
10103	"			00 17 17					460
10104	"			00 25 26					460
10105	FLAT							TUNG A=1/2	24s 10s

Spectr. Temp. ..... Dome Temp./Hum. +9.1°C ..... 59% Transparency Conditions . PART Cloudy 26V

Focus .... 6.70 ... 6.77 odd Light Blue Aurora ? snow?

Spectr. Temp. ..... Dome Temp./Hum. ..... Yes, Aurora

Exp. Mtr.	Seeing	~~Pig.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200?	3"	8.51 -9.38	G8V	CASS CCD	1800/mm G	250μ double	6563Å	19c;	Hdg pgm	CURTAILED, OVERCAST RAIN?	
						h		42 43	Focus Test	TOPPED UP 22:42 EST T=+9.7°C Set 6.70 ν < .2 Pixel Blue.	
T=9.5°C		& ~~Set~~ changed to 6.77				"		"	"		
T=9.1°C								1c			
								~~32~~ 20c;			
								21c;			
417	4"							22c;	Hdg pgm		
295								23c;			
								24c;		cloud again	
										Dome T = +8.1°C	
500								25c;			
320								~~26c;~~			
517								~~26c;~~			
473								26c;			
								27c;		15,951 ADU MAX	

pg #4

Date 1992 Sept 28/29 Observers Hdy I.T.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC10106	Comp							FeAr Clear	90s
107	BIAS(4)								
10108	HD 216598	22 49 06	+37 23	00 41 49					460s
10109	"			00 49 46					460s
10110	Comp							FeAr Clear	60s
10111	FLAT							Tung A=1/2	9s
10112	BIAS(4)								
10113	DARK								1200s

Spectr. Temp. ..... Dome Temp./Hum. +7.5°C 63% Transparency Conditions ..1/2.. cloudy .....264....

Focus ...6.77.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=6020	25au pointer deleted	6563Å	28ci			
								1ci			
444								~~29ci~~			
313								29ci			
7868								30ci			
								31ci		14415 ADU MAX	
								1ci			
							All to	WORM & PERSEUS			

24 Tues / Wed

Date 1992 Sept. 29/30. Observers Hdg. - Tan

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc10114 15	Focus Test					0 0	+38°	FeAr Clear	40/40
16	BIAS(4)								
10117 8 9	FLAT FLAT FLAT							TUNG A=1/2	7 sec
10120	Comp							FeAr Clear	60s
10121	HD177724	19 00 49	+13 43	18 49 24		00 06W			208
10122	"			18 53 44					
10123	Comp							FeAr Clear	60s
10124	BIAS(4)								
10125	COMP			19 04 14				FeAr clear	60s
10126	FLAT							Tung A=1/2	7s
10127	HD 216598			19 10 44					460s
10128	DARK								600s
10129	DARK								700s
10130	BIAS(4)			19 49 10					
10131 10132	Focus Test	comp/stellar posns				01 23E	+38°		

Spectr. Temp. ..... Dome Temp./Hum. 7.7°C 56% Transparency Conditions ... Part Cloudy ... 2.6

Focus ... 6.77 — Mostly Cloudy

Spectr. Temp. ..... Dome Temp./Hum. +7.1°C 60%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Set 6.77 T = 7.7°C				CASS CCD	1800 l/mm G = 6020	2" dekker pointed	6563Å	42 43	Focus CCDFMT	Sl Red = 14 Pixels shifted 520 0 12 1024 10 1	
									OBS CCDFMT	536 0 26 1024 41	
								3c;		13431	
								4c;			
78K		V 2.99	40V mm					5c;	Telluric Std		
40.6K								6c;	"	11660 ADU	
								7c;			
										Dome T +6.6°C	
7082			NOMED RACK IN BETWEEN					8c;			
										13410	
180		V 8.51 -9.36	G8V					10c;		NO GOOD	
								11c;			
	Set Still 6.77A T = +7.1°C							42/43	Reversed Tel Focus Test	Stellar worst Red 632 . 630 x pixel Vert moved shifted @ pixel #100 = 0.2 Red	

2pg #1 Wed / Thurs

Date 1992 Sep 30/Oct 1 Observers Hdg. / T. Tu.

No Eyecolors

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc10133	BIAS(4)	(Tel at East Side)				≈0 0	+14°		
134	Comp							FeAr Clear	60s
135	HD177724	19 00 49	+13 43	18 51 02					20s
136	"			18 56 05					220
137	Comp							FeAr Clear	60s
138 139 140	FLATS x3							Tung A=1/2	8s
141	BIAS(4)								
142 143	Focus Test	Comp/Stellar	Hartman	21 11 focus	Tel East Side	≈3 hrs East	+38°	FeAr Clear	40/40

Spectr. Temp. ..... Dome Temp./Hum. 6.9°C ..... 64.8% Transparency Conditions ..... Fine ..... 26.8 ....

Focus ... 6.77 .....

Then cloud again

Spectr. Temp. ..... Dome Temp./Hum. ..... CLAIMBOY

536 0 26 1024 4 1 CCDFUNT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1 gool/mm G6020	250μ dekker	6563Å	1c;			
								2c;			
37K		2.99	A0 I nm					3c;	Telluric Std		
33K								3c;	"	MAX 10K 10μ	
								4c;			
								5c;		13845, 13662	
										Dome T= 46.5°C	
4790 Comp 4828 Stell		T= 7.0°C		Set 6.77				42/43	wvl shift Ref @ 620 pixel	.3 pixel Red at 450 pixel	
					TO REASSESS & WORK						

pg#1 Thurs/Fri

Date 1992 Oct 1/2 Observers Hdg./Ta/Fbr

Emulsion Batches:

Note Still guiding visually Occasionally

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc 0144	BIAS(4)			1825		00 19W	+39°		
145 146	Focus Comp/Stellar HARTMAN			1825		"	"		40/40
10147	Comp							FeAr Clear	60s
10148	BIAS(4)								
149	HD177724	19 00 49	+13 43	185517		0 20W			220s
150	HD177724	19 00 49	+13 43	190204		0 25W			154s
151	Comp							FeAr clear	60s
152 – 154	FLAT x 3	19 00 49	+13 43	190834		031W		TUNG A=1/8	8s
155	BIAS(4)			19:14				"	
156	Comp							FeAr clear	60s
157	FLAT	22 49 06	37 2300	191836				TUNG A=1/2	8s
158	HD216598	22 49 06	37 2300	[illegible]					460s
159	"	"		193031					460s
160	"	"		193829					"
161	"	"		194628					"
162	"	"		195427					"

Spectr. Temp. ..... Dome Temp./Hum. +12.5°C 63% Transparency Conditions ..... Fine ..... 270.

Focus ... 6.77 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... ℓ LAMBDA

FORMAT → 536 0 26 1024 1

CCDT → 100

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1 900 l/mm G-6020	250u dotted	6563Å	1ci		Tel East Side	
								42/43		Stellar .3 pixel Rad	
								3ci			
								1ci		Reset T +12.3°C	
37,300		V 2.99	AoV					4ci	Telluric Std.	TRACKING ON	
29K		V 2.99	AoV					5ci	TELLURIC STD	TRACKING ON	
								6ci			
										14 K MAX A.D.U.	
								6ci			
		V 8.51 - 9.39	G8V								
									Hdy		
1000	Σ of 2								"		
148									"	OFF SLIT?	
380									"	NOT QUITE CENTRED.	
300									"	AIRMASS = 1.1340	

#2 Thurs-Fri.

Date ..Oct 1/2 -92..... Observers ..Hdg./Fbr./T.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
163	HD216598	224906	372300	200225					460s
164	"			201024					"
165	Comp							FeAr Com	60s
166	Flat							TUNG Δ=1/4	8s
167	Bias (4)								
168	HD216598	224906	372300	202505					460s
169	"			203303					"
170	"			204102					"
171	"			204900					"
172	"			205659					"
173	"			210457					"
174	"			211256					"
175	BIAS(4)								
176	FLAT							TUNG Δ=1/2	8s
177	Comp							FeAr Comp	60s

Spectr. Temp. ..... Dome Temp./Hum. +12°C 64% Transparency Conditions ..... CLEAR 27.2

Focus ..... 6.77 .....

Spectr. Temp. ..... Dome Temp./Hum. +10.7°C 66%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
227		V 8 51-9.31	C8 I	CASS CCD	1200 G=6020	250μ 0.11 KPP	6563Å		Hdy		
500									"		
								9ci			
								10ci		14K MAX	
580	22"	V 8 51-9.31	C8 I					11ci	Hdy	Repeat 1x1	
630									"		
695									"		
775									"		
700									"		
870									"		
695								11ci	"		
								12ci			
								13ci		14K max	
								14ci			

mpg #3

Date 1992 Oct 1/2 Observers Hdy. / Fbr. / Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc 0178	HD216598	224906	+3723	212819		00 51E			
179				213617					
180				214416					
181				215214					
182				220013					
183				220811					
184				221610					
185	BIAS(4)								
186	Comp							FeAr Clear	60s
187	FLAT							Tung A=1/2	8s
188	HD216598	224906	+3723	223030					
189	"			223828					
190	"			224627					
191	"			225426					
192	"			230223					
193	"			231023					

Spectr. Temp. ..... Dome Temp./Hum. +10.9°C. 66% Transparency Conditions ... Fine .....

Focus .. 6:77 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
730	1-2"	8.51 -9.39		CASS CCD	G=6020	250μ	6563A	15ci	Hdy pgm	Repeat x7	
860											
875											
sum of 2											
1800											
950											
860											
								16ci		2 DEC Right passage	
								17ci			
800								18ci		Repeat x7	
850	1"										
890											
771	1"										
740											
708											

27 Night #4

Date 1992 Oct 11/12 Observers [24" Hdy. I.T.s. I. F.br.]

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
cc10194	HD216598	22 49 06	+37 23	23 18 22					
195	BIAS(4)								
196	FLAT							TUNG A=1/2	8s
197	Comp							Fe 1- CLEAR	
198	HD216598	224906	+37 23	23 33 11					46C
199	"			23 41 09					"
200	"			23 49 08					"
201	"			23 57 07					"
202	"			00 05 05		01 46W			"
203	"			00 13 04					"
204	"			00 21 02					"
205	BIAS(4)								
206	Comp							Fe 1- CLEAR	60s
207	FLAT							TUNG A=1/2	6s
208	HD216598	224906	+37 23	00 35 13					465

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... FINE ..... 27.6 ...

Focus ... 6.77 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		✓ 8.51 – 9.39						18c;	Hdg		
		↓						1c;			
								19c;			
								20c;			
357		V						21c;		Repeat × 7	
560		8.51 – 9.39									
510		↓									
483	1"-2"										
565											
580											
606		↓									
										111 – 112 E; as AOU Level Dome T = +9.9° C	
								22c;			
								23c;			
630								24c;	Hdg pgm	900 ADU Σ Avg above Background.	

27" Jy #5

Date 1992 Oct 1/2 Observers Hdg Fkr Tq

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC10209	HD 216 598	22 4906	+37 23	00 ~~43 30~~					460
210	"	"	"	00 5216					"
211	"	"	"	010014					"
212	"	"	"	010813					"
213	"	"	"	011612					"
214	"	"	"	012410					"
215	Bias (4)								
216	Flat							Tungsten n=1/2	6s
217	Comp							Peter Clear	60s
218	HD 216598	224906	+3723	013718					460s
219	"	"	"	014517					"
220	"	"	"	015316					"
221	"	"	"	020114		0343W			"
222	"	"	"	020943					"
223	"	"	"	021740					460
224	"	"	"	022624					496

Spectr. Temp. ..... Dome Temp./Hum. +9.7°C 74% Transparency Conditions Fine Slhaze 2/6

Focus 6.77

Spectr. Temp. ..... Dome Temp./Hum. ..... — No Camera —

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
670		8.51-9.39	GS II	CASS CCD		250	6563Å	25c;	Hdy.		
620								26c;		Repeat x5	
530											
610	5"										
445											
500											
								27c;			
								28c;			
350		8.51-9.39	GS I					59c;	Hdy	Airmass: 1.2304	
520											
550											
550	2-3"										
510								30c;			
520								"			
530								31c;			

2 Rg #C

Date 1992 Oct 1/2 Observers [Hdy 24"] Tu / Flat

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC10225	BIAS(4)								
226	Comp							Fe Ar Clear	60s
227	FLAT							TUNG A=1/2	6s
228	HD216598	22 49 06	+37 23	02 41					460s
229	"	"	"	02 49 01					"
230	"	"	"	02 57 00					"
231	"	"	"	03 04 58					"
232	"	"	"	03 12 57					"
233	"	"	"	03 20 55					"
234	"	"	"	03 28 54.		05 00 W			"
235	BIAS(4)								
236	FLAT							TUNG A-1/2	
237	Comp							Fe Ar Clear	
238	HD216598			03 51 33					495
239	COMP							Fe Ar Clear	60s.

Spectr. Temp. ..... Dome Temp./Hum. +9.9°C ... 74% Transparency Conditions ... Fine ... 280

Focus ... 677 ... inter thin cloud

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								31c1			
								~~32c1~~		12K MAX	
400		8.51 V -9.39	G8V					32c1	Hdy pgm		
360									"		
380									"		
393									"		
330									"		
265									"		
300									"		
								~~33c1~~			
								~~33c1~~			
								33c1			
135								34c1			

29 #7

Date 92-OCT 1/2 Observers Hdy./Tn/Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc10 240.fts	FLAT	224906	37 23						
241	BIAS (4)								
242	COMP							FeAr Clr	60s
243	HD87901	10 0303	12 27	04 17 13					
—	~~HD87901~~	~~10 0303~~	~~12 27~~						
244	~~PLNT~~ COMP							FeAr Clr	60s
245	FLAT							TUNG A=1/2	
~~244~~	~~PLNT~~							TUNG A=1/2	
~~245~~	~~HD87901~~							TUNG A=1/2	
246	BIAS (4)								

Spectr. Temp. .... Dome Temp./Hum. 9.9°C / 78.8% Transparency Conditions NOT CLEAR . [illegible] ..... 28 Y

Focus ....6.77.........

Spectr. Temp. .... Dome Temp./Hum. +10.0°C 79%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2100									TELLURIC		
									— " —		
										CLOUD.	

All Observing WORK ~

Sept #1

Date Oct 2/92 Observers HLW/FBr

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc10247	Bias (4)								
248	Comp							FeNe	20s
249	HD194071	20 18 30	27 55	21 57 46		2 17 W			677
250	Comp							FeNe	20s
251	Comp							FeNe	20s
252	AC+758347	21 57 36	+ 75 08	22 35 02		2 08 W			3600
253	Comp							FeNe	20s
254	Comp							FeNe	20s
255	BD+57 2735	23 19 54	57 20	23 47 44		1 56 W			3677
256	Comp							FeNe	20s
257	Bias (4)								
258	Comp							FeNe	20s
259	HD 3765	00 35 18	39 40 00	01 02 41		1 08 W			858
260	Comp							FeNe	20s
261-269	Flat x 9							TUNG clear	15s

Spectr. Temp. ..... Dome Temp./Hum. 16.2°C / 72.5% (2144) Transparency Conditions ..... Haze ..... 28.4 .....

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

480 0 50 1024 4 1 ccd fmt

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 a=4990	310 μ	λ=5140Å				
850		V 8.13	G8 III	CASS CCD	1800 G=4990	310 μ	λ=5140Å		STD VEL.		
	5"									VERY, VERY WINDY.	
590		V 10.5	M0	CASS CCD	1800 a=4990	310 μ	λ=5140Å		Hlw Pgm		
~~590~~											
991		V 10.05	M2e	CASS CCD	1800 a=4990	310 μ	λ=5140Å		Hlw Pgm	THIN CLOUD	
2500		V 7.36	dK7	CASS CCD	1800 a=4990	310 μ	λ=5140Å		STD. VEL		
										CLOUD, WIND,	
					Nell Rosenhead						

Date Oct 3/4 92 Observers HIW/Fbr

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc10270	Bias (4)								
271	Comp							FeNe clear	20s
272	HD213947	22 29 54	+ 26 05	22 01 15					328
273	Comp							FeNe clear	20s
274	Comp							FeNe clear	20s
275	AC+62 26749	17 34 30	+ 61 45	22 25 46	23 25 46	6:25 W	+61		3600s
276	Comp							FeNe clear	20s
277	Comp							FeNe clear	20s
278	BD+76 785	20 13 54	+ 76 55	23 37 50		4:40 W	+76		2200
279	Comp							FeNe clear	20s
280	Comp							FeNe clear	20s
281	BD+57 2735	23 19 54	+ 57 20	00 32 27					3600
282	Comp							FeNe clear	20s
283	Bias (4)								
284	Comp							FeNe clear	20s

Spectr. Temp. ..... Dome Temp./Hum. 11.4/63.0% Transparency Conditions ..... Clear ..... 786 .....

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

* NORMALIZED HD 213947
480 0 50 1024 4 1 ccdfmt

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 G=4990	310 μ	5140 Å	1,2ci		⟨130 ADU⟩	
2000		V 7.53	K4 III	CASS CCD	1800 G=4990	310 μ	λ=5140Å	4ci	STD. VEL.		
1156		V 9.95	MIV$_e$					5ci	Hlw Pgm	VERY POOR SEEING.	
1925	3-4"	V 9.3	MO					6ci	Hlw Pgm	T=9.5°C / H=70.1% (0039)	
1170		V 10.05	MI$_e$						Hlw Pgm		
										MISS GOODE CAMERA VERY MUCH.	

92

Date .. Oct. 3/4 -92 ..... Observers ... H/W./ FDR .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
285	LHS1176	00 55 11	+60 49 52	01 50 16					3600
286	Comp							FeNe CLEAR	20s
287	FLAT							TUNG	
288	FLAT							TUNG	
289	FLAT							TUNG	
290	FLAT							TUNG	
291	FLAT							TUNG	
292	FLAT							TUNG	
293	FLAT							TUNG	
294	FLAT							TUNG	
295	FLAT							TUNG	

Spectr. Temp. ..... Dome Temp./Hum. 9.1°/73.3% Transparency Conditions ..... CLEAR ..... 288 ....
(946)

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

480 0 50 1024 4 1 ccdfmt

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
372	3"-4"	V 10.8	M2	CASS CCD	1800 a=4490	310 μ	λ=5140Å		Hlw Pgm	DOME SWEATING SHUTTERS DRIPPING.	
										Bad spectrum: wrong star? Hlw 25/0713	
										High Humidity	
										All to Peterson & KERM.	

1 26

Date ..... OCT 4/5-92 ..... Observers ... Hdy./Fbr. .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc10296	DARK			18 21 19					600s
297	BIAS (4)								
298	COMP							FeAr Clear	60s
299	HD177724	19 00 49	+13 43	18 58 38					108s
300	HD177724	19 00 49	+13 43	19 01 54					129s
301	COMP							FeAr Clear	60s
302 - 304	FLAT x 3	19 00 49	+13 43					TUNG A = ½	8s
305	BIAS (4)								
306	COMP							FeAr Clear	60s
307	FLAT							TUNG A = ½	8s
308	HD216598	22 49 06	37 23	19 44 37		02 22 E			460s
309	"			19 52 36		02 14 E			"
310	"			20 00 35		02 20 E			"
311	"			20 08 34		01 58 E			"
312	"			20 16 33		01 50 E			"
313	"			20 24 32					"

Spectr. Temp. ..... Dome Temp./Hum. 11.7°C / 49.2% (18:3) Transparency Conditions ..... CLEAR ..... 290..

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

VISUAL GUIDING

536 0 26 1024 4 1 ccd fmt

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 a=4490	250 μ	λ=5880Å			LIGHTS ON	
								1/2ci			
								3ci			
25K		V 2.99	AOV					4ci	TELLURIC	SMALL TRACKING	
27K		V 2.99	AOV					4ci	TELLURIC	NO TRACKING.	
								3ci			
								5ci			
										TELESCOPE REVERSED	
										V	
486		V 3.39	G8V					6ci	Hdy	T=8.8°C / HUM=54.5% (2029)	
410										AIRMASS = 1.2227	
278											
368											
327											
156											

29 #2

Date ....Oct 4/5-92..... Observers ..Hdy./Fbr.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
cc10 314	HD216598	224906	+37 23	20 3231					460s
315	BIAS								
316	FLAT							~~Red~~ ~~Yellow~~	60s Bs
317	COMP							TUNG A. ½	12s
318	HD216598	224906	+37 23	204606					160
319	"	"	"	205405					"
320	"	"	"	210204					"
321	"	"	"	21 10 03					"
322	"	"	"	21 18 01					"
323	"	"	"	212600					"
324	"	"	"	213359					"
325	BIAS								
326	COMP							RED Clear TUNG ½	60s
327	FLAT								12s

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... CLEAR ..... 2½"

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... VISUAL GUIDING (YAHOO ·)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
360	2"	V 8.51 9.31	GE I	CASS CCD	1800 α = 5530	250 μ	5880Å		Hdy.		
400		V 8.51 9.31	GB II						Hdy		
		"	"						"		
160		"	"						"		
210		"	"						"		
350		"	"						"		
280		"	"						"		
300		"	"						"		
		"	"								

293#3

Date ..OCT 4/5-92..... Observers ...Hdy./Fer.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
cc10328	HD216598	22 49 06	+37 23	21 47 57					460s
329	"	"	"	21 55 56					"
330	"	"	"	220355					"
331	"	"	"	22 11 53					"
332	"	"	"	22 19 52					"
333	"	"	"	22 27 51					"
334	"	"	"	22 35 49					"
335	BIAS(4)								
336	FLAT							TUNGS A=1m RED	9s
337	COMP							RED	60s
338	HD216598	22 49 06	+37 23	22 56 30					460s
339	"	"	"						"
340	"	"	"	23:12:27					"
341	"	"	"	23:20:26					"
342	"	"	"	23:28:24					"

Spectr. Temp. ..... Dome Temp./Hum. 8.0°/52.4% Transparency Conditions ..... CLEAR ..... 294...

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

CCD T = -100°C / 90 cgain

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
450		V 8.51 - 9.39	a.o I	OSS CCD	1800 a = 5330	250 μ	5880Å		Hdy		
456									"		
430									"	A LITTLE OFF SLIT	
450									"		
548									"		
510									"		
370									"		
480											
519											
495										SLIGHT RAIN?	
460											
500											

#4

Date Oct 4/5-92 Observers Hdy/Fbr (Mka for lunch)

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
cc 10343	HD216598	224906	+37 23	23:36:23					460s	11
344	"	"	"	23:44:22					"	485
345	BIAS (4)									
346	COMP							Fe/Ar Clear	60s	
347	FLAT							TUNG A: 1/2	8s.	
348	HD216598	224906	+37 23	23 57 08					460s	455
349	"			23 05 06					"	450
350	"			23 13 05					"	435
351	"			23 21 04					"	420
352	"			23 29 02					"	370
353	"			23 37 01					"	350
354	"			23 44 59					"	290
355	BIAS (4)									
356	FLAT							TUNG A=1/2	8s	
357	COMP							FeAr Clear	60s	

Spectr. Temp. ..... Dome Temp./Hum. 6.7°C/56.8% Transparency Conditions .... CLEAR ..... 296 .....

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
491				CASS CCD	1800 G=5530	250 μ	λ=5880Å		Hdy	T=5.7°/H=60.9%	(2350)
485											
455		V 8.51-9.39	GBV								
450		"	"								
425		"	"							SEEING IS RATHER POOR.	
420		"	"								
370		"	"								
330		"	"								
290		"	"								

#5

Date Oct. 4/5-92 Observers Hdy. / Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc10358	HD216598	224906	3723	005719					60s
359	"	"	"	0005 18					"
360	"	"	"	0013 16					"
361	"	"	"	012115					"
362	"	"	"	012913					"
363	"	"	"	013712					"
364	"	"	"	014511					"
365	BIAS(4)								
366	COMP							FINE COM TUNG $\lambda = 1/2$	60s
367	FLAT								8s
368	HD216598	224906	3723	020045					460s
369	"			020844					"
370	"			021643					"
371	"			? ~ 0222?					"
372	"			023240					"
373	"			024039					"

Spectr. Temp. ..... Dome Temp./Hum. 5°C/62.2% Transparency Conditions ..... Haze ..... 298 ...
Focus ..... 6.70 ..... (0058)
Spectr. Temp. ..... Dome Temp./Hum. ..... 536 0 26 1024 4 1 ccdfmt

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	4"(?)	V 8.51 - 9.34	G8 II	CASS CCD	1800 G=5530	250 μ	λ=5880Å		Hdy		
465 (SUM OF 2)									"		
225									"		
239									"		
145									"	OFF SLIT?	
400									"		
200									"	LOST STAR?	
										LOSS OF STAR ON SLIT MAY BE RELATED TO A POSSIBLE PROB WITH DRIVE MOTOR (TROUBLE REPORT FILED)	
310									Hdy		
350											
260											
360 190 }	SUM OF 2									LOSING STAR QUITE OFTEN NOW.	

#6

Date Oct 4/5-92 Observers Hdy/Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
374	HD216598	224906	+37 23	024837					460s
375	Bias(4)								
376	Flat							TUNG ½	8s
377	Comp							Refer Cen	60s
378	HD216598	224906	+37 23	030423	?				460
379	"	"	"	032021	?				"
380	"	"	"						"
381	"	"	"						"
382	Bias(4)								
383	Comp								
384	Flat								
385	Comp								
386	Flat								
387	HD87901	10 03 03	+12 27						
388	HD8701	10 03 03	+12 27	040349					112

Spectr. Temp. ..... Dome Temp./Hum. 2.9°/67.7% ~~Transparency~~ Conditions CLEAR 300

Focus 6.70

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
280				CASS CCD	1800 G=5530	250 μ	λ=5880Å		Hdy	QUITE HARD TO KEEP STAR ON SLIT. SEEING IS ALSO QUITE POOR.	
200											
400	"?" (BAD)									ONLY BATCH OF 4. COULD LOSE STAR ANYTIME. GUIDING BY "EAR". - POOR SPECTRA.	
} 300	COMBINED.										
28K										TELESCOPE ALMOST TOUCHING PLATFORM	
25K											

MO #7

Date Oct 4/5 -92 Observers Hdy / Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
389	FLAT							TUNG Y2	13S
390	FLAT							TUNG Y2	13S
391	FLAT							TUNG Y2	13S
392	BIAS (4)								
393	BIAS								
394	COMP							FeAr Qtz	60s
395	FLAT	(2000)	(2000)					TUNG Y2	10s
396	JUNO	06 17 54	07 47	05 06 31					352
397	JUNO	06 17 54	07 47	05 13 24					993
398	FLAT							TUNG Y2	10s
399	COMP							FeAr Qtz	60s
400	BIAS (4)								

Spectr. Temp. ..... Dome Temp./Hum. H..... Transparency Conditions .....CLEAR.....30.2
(cold!)

Focus .....6.70.....

Spectr. Temp. ..... Dome Temp./Hum. .....

mparison tel Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
13s												
13s												
13s												
60s												
10s												
353	200											
993	600											
10s												
60s												

ALL TO PERSEUS AND WORM.

Date 06/17-92 Observers Hdy/Fbr

Emulsion Batches: .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
10401	BIAS(4) (00 1024 1024 11)			18 30 33					
402	DARK (00 1024 1024 11)			18 31 31					600s
403	COMP			18 45 29				Fbr Clear	60s
404	FLAT							TUNG n = 1/2	10s
405	HD177724	19 00 49	13 43	[illegible]	19 02 59				5[illegible]
406	"	"	"	[illegible]	19 05 16				5[illegible]
407	COMP							Fbr Clear	60s
408	FLAT	19 00 49	13 43					TUNG 1/2	10s
409	FLAT	"	"					TUNG 1/2	10s
410	FLAT	"	"					TUNG 1/2	10s
411	FLAT	22 49 06	37 23 00	19 33 17 [illegible]				TUNG 1/2	10s
412	COMP							Fbr Clear	60s.
413	BIAS(4)								
414	HD26598	22 49 06	37 23	19 40 48					460s
415	"	"		19 48 47					"

Spectr. Temp. ..... Dome Temp./Hum. 11.4°C / 59.1% Transparency Conditions ..... Clear ..... 2306.
(1803)

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

536 0 26 [redacted] 1024 4 1 ccdfast
ccdT = -100.5°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 c=5550	250 μ	λ=5880Å				
										LIGHTS ON FOR PART	
								3c's			
								4c's			
22 K		V 2.99	AOP						TELLURIC	NO TRACKING	
22 K		"	"						"	HAD TO DO TWICE, SOMEHOW	
										386 LOST CORRECT FORMAT.	
460											
356									Holy		

305 #2

Date ..Oct 6/7-92..... Observers ....Hdy.1.Fbr.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
416	HD216598	224906	37 23		19 56 48				460
417	"	"	"		20 04 44				"
418	"	"	"		20 12 43				"
419	"	"	"		20 20 41				"
420	"	"	"		20 28 48				"
421	Bias (4)								
422	Comp								
423	Flat								
424	HD216598	224906	3723		20 41 30				460
425	"				20 49 29				"
426	"				20 57 27				"
427	"				21 05 26				"
428	"				21 13 25				"
429	"				21 21 23				"
430	"				21 29 22				"

Spectr. Temp. ..... Dome Temp./Hum. 9.5°C/62% Transparency Conditions ..... CLEAR .....

Focus ..... 6.70 ..... (1942) 306

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
540				CASS CCD	1200 a=5530	250 μ	λ=5880		Hdy		
~~400~~									"		
360									"		
480									"		
260									"		
439									Hdy		
~~360~~ 770	400 Σ OF 2								"		
									"	OFF SLIT FOR A WHILE	
850									"		
785									"		
770										DOME T=7.8°C/H=70.8% (2131)	
925											

39 #3

Date Oct 6/7-92 Observers Hel/Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
cc10431	Bias(4)								
432	Flat								
433	Comp								
434	HD216598	224906	+3723	214502					460
435	"			215300					"
436	"			220059					"
437	"			220858					"
438	"			221657					"
439	"			222455					"
440	"			223255					"
441	Bias(4)								
442	Comp							FeAr Cow	60s
443	Flat							Tn ½	10s
444	HD216598	224906	+3723	224630					460s
445	"			225432					"
	"			23:02:31					"

Spectr. Temp. ..... Dome Temp./Hum. 7.9°C / 71.1 Transparency Conditions ..... Clear. ..... 308...

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 a = 5530	250 μ					
810									Hdy		
855									"		
730									"		
550									"		
980									"		
[redacted]									"		
									"		
2600											
505											
425											

89 #4

Date . Oct. 6/7-92 ..... Observers . Hdy / Ebr .....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
CCI0646.FTS	HD216598			23:10:30	X				
447.FTS	"								
CCI0448.FTS	Bias x4.			23:38:22					
449	Comp							R-Ar Cen	60s.
450	FLAT							TUNG 1/2	85
451	HD216598	22 49 06	+37 23	23 53 56					460s
452	"			00 01 54					"
453	"			00 09 53					"
454	"			00 17 52					"
455	"			00 25 51					"
456	"			00 33 50					"
457	"			00 41 49					"
458	BIAS (4)								
459	Comp							R-Ar Cen	60s
460	FLAT							TUNG 1/2	

Spectr. Temp. ..... Dome Temp./Hum. 7.3 / 71.8% Transparency Conditions ..... CLEAR + HUMID .....

Focus ..... 6.70 ..... 310.

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 G=5530	250 μ	λ=5880Å		Hdy	SYSTEM CRASH	
									"		
										RESET SYSTEM O.K.	
710									Hdy	T=6.7°C / H=76 49%	
745									"		
640									"	DOME SWEATING SHUTTERS BEGINNING TO DRIP	
520									"	T=6.8°C / H=77.2% (∞23)	
618									"	AIRMASS = 1.116 A=64°	
950									"	SLIGHT WIND - H=97% (ARROE)	
760									"		

3/5 #5

Date Oct 6/7-92 Observers Hdy/Fbr

Emulsion Batches: .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
*461	HO216598	22 49 06	+37 23	005503	(CHECK OUT THE	SPECTRUM!)			460s
462	"	"	"	010307					"
463	"	"	"	011106					"
464	"	"	"	011905					"
465	BIAS(4)								
466	FLAT	22 49 06	+37 23					TUNG 1/2	8s
467	COMP							FeAr CuA	105
468	BIAS(4)								

Spectr. Temp. ..... Dome Temp./Hum. 7.1°C/77.5% Transparency Conditions ... CLEAR / HUMID .....
(0051) 312

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
880	BIG COSMIC		RAY!	CASS - CCD	1800 G=5530	250 μ	λ=5880		Hdy	ONLY DID 4 EXPOSURES WORRIED ABOUT HUMIDITY.	BIG COSMIC RAY
780									"	H=78.3% (0054)	
1050 (wow!)									"		
960			(NOTE: CHECK FILE #461!)						"		
										TOO WET - CLOSE (80% IN	
										T=6.9°C (98% OUT)	
				ALL TO PERSEUS AND COMA							

3/3 Wed-Thurs

Date 1992 Oct 7/8 1..... Observers ..Hdy...Ta...Fbr.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC10469	BIAS(4)				~2138				
470	Comp			213944				FeAr Clear	60s
471	~~HD216598~~ FLAT			21				Tung A=1/2	6 sec
472	HD216598			215818					460sec
473	"			220618+17					460sec
474	"			221415					460sec
475	"			222213					"
476	"			223011					"
477	"			223810					"
478	"			224609					"
479	BIAS(4)								
480	COMP							F/Ar Clear	60
481	FLAT							TUNG 1/2	6s
482	[redacted] BIAS(4)								
483-484	DARK								1200s
485	BIAS(4)								

Spectr. Temp. ..... Dome Temp./Hum. +9.5°C. 73% Transparency Conditions ... Clearing by 21 EST...

Focus ... 6.70 314

Spectr. Temp. ..... Dome Temp./Hum. ..... CCDT = -100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						250μ decker	6563B	1c:			
								3c:			
								4c:		12478 ADU MAX	
405								5c:	Hdy pgm	STAR460S.BAT	
465											
365										PROBLEMS WITH GUIDE MOTORS	
420											
505											
520											
565											
										11749 ADU MAX	

35 pg. 1 Thurs Fri

Date 1992 Oct 8/9 Observers Hdg./Tn./Fbr.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc10486	BIAS(4)								
487	FLAT							Tung A=1/2	6s
488	COMP							FeAr clear	60s
489	HD 216598	22 49 06	37 23						
10487	BIAS(4)								
10488	BIAS(4)			19 01 35					
10489	BIAS(4)								
10490	BIAS(4)								
10491	BIAS(4)								
10492	BIAS(4)								
	BREAK BIAS								
10493	FLAT							Tung A=1/2	6s
10494	COMP			19 19 36				FeAr clear	60s
10495	BIAS(4)								
10496	HD 216598	22 49 06	37 23	19 23 51					460s
10497	"	"		19 35 24					460s
10498	"			19 43 51					460s

Spectr. Temp. ..... Dome Temp./Hum 12.5°C ... 67% Transparency Conditions ... PART. Cloudy .....

Focus ... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. 11.9°C 70.9%

316

536 0 26 1024 4 1 CCDFEST

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					1800 ℓ/mm G=6020		6563Å	~~tel~~			
										~~1A 17 MAX ADU~~	
.6731											
										-100.65°C LIGHTS ON	
										LIGHTS ON JUST BEFORE TDP-UP	
										8-25 LIGHTS ON SEC AFTER START OF TDP-UP	
										44-69 LIGHTS ON SEC AFTR	"
										300-319	
					TDP-UP ENDED		1911 EST			7:24-7:46	
										130 18 ADU MAX	
5995											
150								5ci		70.9% hum +12.1°C CLOUDS	
>400	2"							6ci		OUT OF CLOUD	
570								7ci			

3m2 p.2

Date 1992 Oct 8|9 Observers Hdy / Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc 10499	HD 216598			19 51 52					460s
10500	"			19 59 52					"
10501	"			20 07 53					"
10502	"			20 16 04					"
10503	"			20 24 08		01 27E			"
10504	Comp							FeAr Clear	60s
10505	FLAT							Tung A=1/2	6s
10506	BIAS(4)								
10507	Comp			20 38 17				FeAr Clear	60s
10508	HD 20418			20 43 36					948s
10509	Comp							FeAr Clear	50s
10510	FLAT							Tung A=1/2	
10511	FLAT								
10512	BIAS(4)			21 03 32					
10513	FLAT							Tung A=1/2	6s
10514	COMP							FeAr Clear	60s

Spectr. Temp. ..... Dome Temp./Hum. +11.8 ... 70.9% Transparency Conditions clear ... hole .....

Focus ... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
56P	2"	V 8.51 -9.34	G8V	CASS CCD	1800 ln/mm 250μ G6020 w. decker			7c;	Hdypgm		
590								"			
525								"			
485								"			
>450										1.834 AIR MASS	
6119								8c1			
								9c;			
								1c;			
6420								10c;		AT HD 20448 POSN	
9400		5.03	B5 V					11c;	Telluric	vsin i = 298 km/s	
								12c;			
								13c;		11 K MAY	
								1c;			
								14c;		12899	
								15c;			

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Date 1992 Oct 8/9 Observers Hdy/Tn

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc10515,fits	HD 216598			21 12 00-01?					460s
516	"			21 20 01					"
517	"			21 28 01					"
518	"			21 36 01		00 15E			"
519	"			21 44 02					"
520	"			21 52 10					"
521	"			22 00 10					"
10522	COMP							FeAr clear	60s
523	FLAT							Tung A=1/2	6s
524	BIAS(4)								
525	HD 216598			22 11 57					460s
526	"			22 19 57					"
527	"			22 27 57					"
528	"			22 35 58					"
529	"			22 44 19					"
530	"			22 52 19					"

Spectr. Temp. ..... Dome Temp./Hum. +10.8°C ... 74% Transparency Conditions ... Cloud at Times .....

Focus ... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. +10.5°C ... 74.8%

320

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
385	3"			CHSS CCD	1800 l/mm G=6020	250μ	6563Å	16c;	Hdg pgm	IN ECLIPSE	
} 655											
250	3"										
207										CLOUD	
327										OUT OF CLOUD	
400								16c;			
6640								17c;			
								18c,		12415	
								1c;			
455	3-4"							19c;			
335								"		IN CLOUD	
460								"			
450								"			
500								"			
203								"		THICK CLOUD	

32 pg #4

Date 1992 Oct 8/9 Observers Hdg / T.n

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC10531	FLAT							TUNG A=1/2	6 s
532	Comp							FeAr Clear	60s
533	BIAS (4)			23 03 21					
534	DARK			23 10 26					600s
535	BIAS(4)								
536				23 50					
537	Focus Test	Comp/Stellar	Hartmann Posns			00 00	+25 29	FeAr Clear	30/30

Spectr. Temp. ..... Dome Temp./Hum. +10.4°C 74.8% Transparency Conditions Clouding in 32?

Focus 6.70

Spectr. Temp. ..... Dome Temp./Hum. +10.7°C 76%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CAGS CCD	1800 l/mm G=6020		6563Å	2Ci		11 640 nm	
								22Ci			
								23Ci		-102.0°C	
								1Ci			
	Set	6.70	T= 10.5°C					27i 28i	Pixel # 270 Rightons	Pixel # 900 stellar Blends 470 0 10 1024 20 T CCD Foff	
					All to Perseus & work						

Comparison Filter Exp

6s

30s

600s

30 30

Fri SAT

Date 1992 Oct 9/10 Observers Hdy/T.n

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
FIT 60920	FLAT 2HRS during afternoon by HK						ND 2.0	Tung Clear	7.2s
921	Comp while moving Telescope				21 53		no ND	FeAr Clear	633s
FIT STAG 922	HD216598	22 4906	+3723	2203	22 47				2580s
FIT 923	HD20418	03 12 00	+49 43 47	2255 45	23 35		*no ND In Beam		2352s
Fit 924	Comp	"	"	23 36 56	2349			FeAr Clear	7.7s
Fit 925	DARK			00 02 36					3600s
Fit 926	FLAT 2hrs			01 35 ~~57~~ 10		mostly platform		A=1/2 Tung ND 2.0	7200s

Spectr. Temp
Focus
Spectr. Tem
Exp. Mtr
A chunk
100-40
70-40
2-14
1300-1400

Spectr. Temp. ..... Dome Temp./Hum. +12.4°C 56.8% Transparency Conditions ... Clearing ... 224

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. +10.5°C 65%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
A churned				PTS FIBER FOCL	1800 63°5		Hα				
100-400		8.51 9.39	G8V	TAG	25,20,081 FRAMES				Hdy pgm	FOR TAG LIMITS [900 → 3000] [Last image ≤ 2210] (FOR 2 mins) CLOUDED OUT	
1500-3500	3.6"	5.03	B5V	NO TAG	1 FRAME = .001024 sec				Telluric Std	AIRMASS = 1.88	
TO-90											
3-14				[TAG≤F1							
~~1300-1500~~ 1300-1400											
				[TAG≤FITS TO N:\TIMETAG≤ WORK to FIT 00925. not Last one Yet.							

32 SAT SUN

Date 1992 Oct 10/11 Observers Hdy/Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
F:t00927.fts	FLAT			OCT 10 1992 15 00 14				Tung ND2.0 A-1/2	7200s
928	DARK			18 28 27					4153s
929	FeNe COMP			~19 46	~19 58			FeNe ND2.0 A-1/8	720s
930	DARK ??			01 34 41					1711

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... Rain .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. +12.5°C H-80% @ 02 EST

326

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1250 – 1400				PTS	1800 63°5	7 Fibres 50μ simulated slit				PARTLY DURING CCD TOP UP MOSTLY IN DARK ON PLATFORM	
3-12						From 400μ Fibre 2 11/4 DIA				CAP OVER FIBRE LIGHTS OUT	
7-30		37.2 μA	⇒	36μA 39.5μA -25 to -30°C		6.25μ/pixel same as last night				CHANNEL A WAS ZAPPED ON FRIDAY BY FeNe. WANTED TO TEST	
4. 30-80 / B 15-40		I noticed high signals Note				0 – 60 pixels (0 spikes)			Test.	Not much light.	

322 SUN MON

Date 1992 Oct 11/12 Observers Hdy / Tn

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
Fit00931.fts	Comp		ZENITH	13 22 56				FeAr Clear	1613s
932	Sky (solar)		PLATFORM	14 07 43					1465s
933	Comp		PLATFORM		15 02			FeAr Clear	1126s
Fit00934.fts tag.hdy	Dark		11	15 09 35					12900
935	FLAT		VAR	19 09 10				Tung ND 2.0 A=1k2	7200

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
54-82				PTS	1800 63,5						
800-2000										primary & secondary capped shutter open 1/2 metre	OVERCAST
57-90											
1-7											
1360-1480										LIGHTS ON PARTLY	

mon & Tues

Date 1992 Oct 12/13 Observers Hdy/Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
Fit 0936	FLAT			19 22 07				ND 2.0 A=1/2	7200
937	DARK				22 55				4795
938	COMP			00 47 52	01 02			FeAr Clear	
tag Fit 00939	HD 197433	20 38 36	75 14	01 38	02 13	06 47W			2103
tag Fit 940	"			02 14					2032
941	FeAr COMP			02 51 08				FeAr Clear	938
942	FLAT	Left Running				OHL platform	ND 2.0	TUNG A=1/2	7200
	Oct 15/16 Cloudy night Test								
tag Fit 943	DARK [Tagged from pixel 1-4095]			20 41	22 01	00	platform		4800

Spectr. Temp. ..... Dome Temp./Hum. +5.0°C ... 73% Transparency Conditions .. Clearing .. finally .. maybe. Then cloudy 330

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. +4.2°C .. 76% Tel NORMALIZED on BS603 BRT comp of OBJ

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1355-1913				PCS Time TAG	1800/635°	400µ ×50×7	6563Å				
										(incl 5 MIN LTAG) To Perseus only	
67-115											
240-510	"8"	7.4 7.7	G(3-5)		2,054,093 FRAMES				Hdy pgm	Tel East Side of Piers Seeing vv Bad	
200-390 575										2:31:20 EST HUMIDITY 2:46:20 RELAY CLOSED	
60-100							All To Perseus & warm			To this exp.	
1400/40											
0-17 cnts		Tape size 238 K bytes							Hdy test	All now to Perseus & warm & To Floppy	

391

FRI / SAT

Date 1992 Oct 16/17 Observers Hdy / Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
Fit 00944.fits	FLAT			DCT 16 16 58 08	18 58			Tung ND 2.0 A-1/2	7200
Fit tag 945	COMP			19 31				FeAr Clear	1160s
Fit TAG 946	HD 20418	03 1200	+49 44	2008	21 31	E			4954s
Fit 947	COMP			21 40 19	21 55 49			FeAr Clear	900s
Fit 948	DARK			22 00 57	00 01 18	0 0	-21°		7200
Fit 949	FLAT (SHORT)			0035 21				Tung ND 2.0 A-1/2	2760
950	COMP			01 23 07	01 33 19			FeAr Clear	612s
Fit tag 951	HD 197433	20 38 36	+75 14	01 37	05 28				13801
" 952	"	"	"	0528	05 42	10 33W			801s
953	ELECTRICAL NOISE DURING FeAr		PROBABLY	CAUSED BY	DOME MOVEMENT STARTING				
954	COMP SOME ELECTRICAL NOISE			05 50 39				FeAr Clear	910s
955	FLAT			06 35 45		0 0	platform	Tung ND 2.0 A-1/2	7200

Spectr. Temp. ..... Dome Temp./Hum. ~~5~~ +6°C 55% Transparency Conditions ... Clearing ...

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. +3°C 70% Tel NORMALIZED on BS 8086 SE of Pair

GUSTY WINDY 33V

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1286 -1489				PCS PTS	1800 63.5	400u Fiber	6563Å	IA		* 400u FIBER TO 7 x 50u SLIT BUNDLE	
72-112											
700-~~3000~~	6"	503	B5V	SH415	4865		6563Å		Telluric Std	X ~ 1.65 9.7 MB CLOUDED OUT	
73-126										LONG PERIODS OFF FIBRE	
1-11 AVE =	5.5-9.3 3.4-5.5		A COUNTS B							CAP OVER FIBRE Mostly cloudy now	
1253-1466										CLEARING UP! WIND DIED DOWN	
60-90										CLEAR MOSTLY	
~~320~~ 320-711 -837	4"	7.4 7.7 -920 -1044	G3			TEMP RELAY CLICKED 01:43:45 EST OFF FIBRE FOR SEVERAL MINUTES ~3:30-5				-00 00 57 } readers 00 01 57 } +65% turn	
200-800									H-γ pgm	STARTING TO SEE TWILIGHT AT START	
700 A 300 B											
71-108											
1305-1426										BRA -00 00 51 +00 01 59	

33

Date 1992 Oct 17/18 Observers Hdy/Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
956	DARK			15 05 11					3600
957	FLAT			16 06 44			ND=2.0	Tung A=1/2	7200
958	DARK			18 16 12					4[illegible]s
959	COMP			18 23 55				FeAr Clear	930s
TAG FIT 960	HD197433	20 38 36	75 14	18 50 22		00 10E			700
TAG FIT 961	11			19 04 35					3875
962	Comp							FeAr Clear	900s
TAG FIT 963	HD197433				20 42				810s
964	FLAT			20 49 53	~~20 49 53~~	09 E	+83°	(Tel W side of Pier)	
965	Comp			01 12 16				FeAr Clear	670s
TAG FIT 966	HD197433	20 38 36	+75 14	01 35 57	05 39				14610
TAG FIT 967	11			05 39 43					600s
968	COMP			06 05 04				FeAr Clear	900s
969	FLAT			06 36 28			ND=1.8	Tung A=1/2	7200

Spectr. Temp. ..... Dome Temp./Hum. +5.7°C 50% Transparency Conditions ..... PART. cloudy 3.34

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. +1.1°C 70.8% CHAMBDA Tel NOAMALIZED West Side on BS8023

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
?				PCS	1800/635	400u Fiber	6563Å				
1222-1409											
6-17											
56-105											
600-1300	3"	V 7.4 7.7	G3	TAG 1050-2430			[illegible]		Hdy Pgm	Tel East Side	
600-1200 -1495	3"-4"	"	"	1200-2630					"	NRA-000035 some cloud Δ Dec 100 arcs at End	
60-100											
398-881											
1330-1450										All Fit to Floppy : Perseus	
55-103											
1200-1100 400-800	3"-4"	V 7.4 -7.7	G3				12.6 MB		Hdy Pgm	A BIT HAZY AT TIMES	
200-500										DAWN	
47-81											
1327-1448											

23 pg #1

Date 1992 Oct 19/20 Observers J.Z.K./T.A./...B.A.G.t START too

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC10538 539	Focus Test	Comp / Stellar HARTMAN			1930	Oct 19/20	+3230	FeAr Clear	20/2
540	Comp							FeAr Clear	60s
541	HD3712	00 4005	+56 2947	22 2213		0039E			50s
542	Comp.							FeAr Clear	60s
543	BIAS (4)								
544	Comp								60sec
545	Nova Cyg 92 *	202743	+52 1739	22 40 10		352 W			252s
546	" *			22 45 32.		7			1552s
547	Comp.							FeAr Clear	60s
548 549 550	Flats x3							TUNG Att=1/2	7sec
551	BIAS(4)								
552	Nova Cyg 92	202743	+52 1739	23 35 08					1124s
553	Comp							FeAr Clear	60s
554	Comp							"	"
555	HD20418	03 12 00	+49 44 00	00 10 51					565s

Spectr. Temp. ..... Dome Temp./Hum. +2°C ...60% Transparency Conditions ... Clearing slowly ... 336

Focus ... 6.82 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLAMBDA 90 CGAIN CCDT -> -100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
+2°C	set 6.82			CASS CCD	1800 G=6020	250μ dekel	6563Å	3c: 4c:	Focus	vvsl Rel for stellar	
[*Note	FeNe saturatn @ ≈ 22 EST]							5c:	480 0	50 1024 4 1 CCD FMT ↓	
	next page explained							6c:	Std vel	(Also Tel norm star)	
								7c:			
								1c/		Dome T = 0°C	
								8c:			
60		V=9.4	Hα Emmission		[FeNe Saturatn seen]			9ci		MAX 500 ADU	
352.								10ci		1700 ADU	
								13ci		12000 ADU.	
										-00.5° Dome T	
543.	3".5"							14ci		3000 ADU MAX.	
								15ci			
								16ci			
20000	3"									7000 ADU MAX.	

2 pg#2

Date 1992 Oct 19/20 Observers JzK/Tn

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
556.	Comp.							Fe/Ne Clear	
557	Bias (4).								
558 .563	FLATS x 6.								
CC10564	DARK *	shows weak FeNe		00 50 54		0 0	platform		1200s
CC10565 66	Focus Test	Comp/	Stellar Hartmann		01 ~~46~~	0 0	+28°		

Spectr. Temp. ..... Dome Temp./Hum. -1.5°C 68.3% Transparency Conditions ... Clear ... 338.

Focus ... 6.82 ... starting to cloud in a bit

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
							6563R				
								Mi	~~Ki~~	CCD T = -102°C	
								2ci		Note presence of weak FeNe saturation	
	Set	6.82	T = -10°C					3ci 4ci	470 0 10	1024 90 1 CCDFMT	Right on
					* @ ~ 22EST, accidental FeNe, 60secs, clear APERTURE						
					caused saturation/streaking effect, visible only in weak						
					continuum or DARKs. Decreasing in Time.						
					All To Perseus : WORM						

237 pg #1

Date ... Oct 22/23 -92 Observers ... Tn/Fbr [Rm]
Thur-Fri

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
cc10567 68	Focus				17 50	030W	+3547		
569	Bias (4)								
570	Comp							FeAr clear	60s
571	HD177724	19 00 49	+13 43	18 08 44					
572	Comp							FeAr clear	60s
573	"							"	"
574	Nova Cyg 92	20 27 43	+52 17 39	18 24 16		0034W			1130
575	Comp							FeAr clear	60s
576	Nova Cyg 92	20 27 43	+52 17 39	18 48 59		0025W			1044
577	Comp							FeAr clear	60s
578	Bias (4)								
579	Comp							FeAr clear	60s
580	HD177724	19 00 49	+13 43	19 28 12					115
581	Comp							FeAr clear	60s
582 → 584	FLATS x3							Tung Ap 1/2	7 ss

Spectr. Temp. ..... Dome Temp./Hum. 5.1°C/83.1% Transparency Conditions ..... Clear 340
(1744)

Focus ..... 6.82 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

480 0 50 1024 4 1 ccd fmt

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	T = +5.0°C			CASS CCD	1800 l/mm G=6020	250μ decker	6563	3ci 4ci		Stellar .7 pixels Rad.	
								1ci			
								5ci			
27 K	Fine	V 2.99	AOI nm					6ci	Telluric Std	14 K max	
								7ci			
	2"							8ci			
619	2"	V ≈ 9.5						9ci	Nova Pgm	max 3700 104	
								10ci			
630								11ci	Nova pgm		
								12ci			
								1ci		Dome T = +4.4°C	
					* G=6020			13ci	* (Accidant) Note, Grating moved, Then Returned to 6020		
20 K		V 2.99	AOI nm					14ci	Telluric Std	Air mass 1.33	
								15ci		(12 pixel shift)	
								16ci	Note Again, That Grating had moved and was moved back to 6020 posn		

341 pg #2

Date 1992 Oct 22/23. Observers [Rm] Fbr ITy

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC 0585	Comp							FeAr Clear	90s
586	HD177~~24~~	19 00 49	+13 43	19 41 09		02 27W			
587	Comp			[CC 0588 Comp Before			HD203156]	FeAr Clear	~~90s~~ 60s
589	HD203156	21 15 23	+ 37 49	19 53 47		00 32W			
590	Comp							FeAr Clear	60s
591	Comp							"	"
592	HD198726	20 47 13	+27 52 30	20 10 15					357s
593	Comp							FeAr Clear	60s
594	HD198726	20 47 13	+ 27 52 30	20 20 49					618
595	Comp							FeAr Clear	60s
596	Bias (4)								
597	Comp							FeAr Clear	60s
CC 0598	HD214975	22 36 55	+ 56 18	20 43 55		0 32 W			234s
599	Comp							FeAr Clear	60s
600	Comp							"	"
601	HD3765	00 35 18	39 40	21 38 47		01 03E			57s

Spectr. Temp. ..... Dome Temp./Hum. +39°C 85% Transparency Conditions .. 51 Hazy ..... 34.V..

Focus .... 6.82 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

480 0 50 1024 41 ccdfmt

CCDT = -100.5°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
~~				CASS CCD	1800 l/mm G-5930	250μ decker	6450Å	17			
25K	Fine	V 2.99	AOV mm					18	Telluric Std		
								19			
7100	<2"	V 5.8-5.9	F2					20	Rm Pgm	T = 3.8°C [5K ADU MAX] Hum = 86.3% (1953)	
								22			
								23			
11005		V 5.75	GOIb					24ci	Rm pgm	Radout early due to loss of image	
								25ci			
10000	<2"							26ci	Rm pgm		
										Dome Starting To Drip Water	
								27ci			
2405	<2"	V 8.40	GOIb					28ci	Rm Pgm	7700 Sum Abs Above Beg.	
								30ci			
								30a			
2450		V 2.23	KOIIIa					31ci	Std. Vel.	800 Sum Abs Above Beg.	

343 Pg# 3

Date 1992 Oct 22/23 Observers E Rm J Fdr/Tn

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC10602	Comp							Fdr Clear	60s
603	Comp							"	"
604	HD222368	23 34 48	05 05	21 57 52					175s
605	Comp							Fdr Clear	60s
606-611	FLAT x 6					00 16W		Tung A=1/2	6s
612.	~~Flats~~ BIAS(4)								

Spectr. Temp. ..... Dome Temp./Hum. 3.3°C/88.5% Transparency Conditions ..... HAZE/FOG 3 4 5

Focus ..... 6.82 .....

Spectr. Temp. ..... Dome Temp./Hum. +3.3°C 90%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS - CCD	1800 a = 5930	250μ	λ = 6450	7c;			
								8c;			
12 KX	4*	V 4.13	F7V					9c;	STD. VEL.		
								10c;			
								11c;		11K ADU MAX	
Note	✓ CCDFMT in Headers of CC10598 Thru CC10601 ARE incorrect. To late to edit WORM Backup done.									Dome Dripping Heavily - Close -	
	✓ Edited for CORAVG APR 30/96 TM										
	✓ All to Perseus & WORM										

344

Sun, Mon

Date Oct 25/26 92 Observers Hlw/Fbr

Emulsion Batches: .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc10613	Bias (4)								
614	Comp							FeNe clear	20 sec
615	HD223094	23 41 30	28 09 00	21:32:05		-0:05 E	+29°		395s
616	Comp							FeNe clear	20 sec
617	Comp							"	"
618	HD199305	20 51 16	61 47 07	22:03:50		3:39 W	+62		1500
619	Comp							FeNe clear	20 s
620	Bias (4)								
621	Comp							"	"
622	BD+57 2735	23 19 54	57 20 00	22:50:24			+58		3600
623	Comp							"	20s
624	Bias (4)								
625	Comp							"	20s
626	AC+71 532	00 55 26	+71 0849	00 39 23		2:24 W	+72		2648
627	Comp.							"	20s
628 - 633	Flat x6							Tung.	7 s.

Spectr. Temp. ..... Dome Temp./Hum. 1.9°C/65.5% Transparency Conditions Clear, some scattered cloud.

Focus 6.22

Spectr. Temp. ..... Dome Temp./Hum. ..... Fmt: 480 0 50 1024 4 1 346

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=4990	310μ	cλ=5140Å	1 ci			
								3			
2195		7.45	K5II					4	Std Vel.		
								3			
								3			
1944		8.5	M2V					5	H/W Program.		
22k								3			
								1			
								3			
1488		10.05	M2e					6	H/W Prg.		
								3			
								1			
								3			
1260		10.06	dM4e					7	H/W Prg.		

342

Date ... Oct 26/27 92 ... Observers ... Fbr ...

MON - TUE

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc10634	BIAS (4)								
635	Comp							Fbr Clear	60s
636	HD177724	190049	13 43	20 08 27					141s
637	HD177724	"	"	20 11 41		0315W			154s
638	Comp							Fbr Clear	60s
639	Flats							Tung $\Delta = \frac{1}{2}$	7s.
639	BIAS								
640-645	Flats								

Spectr. Temp. ..... Dome Temp./Hum. 5.2°C/82.2% (1947) Transparency Conditions ... PTLY. CLOUDY / HAZE ....

Focus ..... 6.82 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

348

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 a=6020	250 μ	λ=6563Å				
26K		V 2.99	AOL						TELLURIC	TRACKING (GUIDING)	
26K		"							TELLURIC	NO GUIDING	
										HUGE CLOUD - LONG WAIT BEFORE NOVA - MORE CLOUD, HUMIDITY > 85%	

349 #1

Date Oct 27/28-92 Observers ...Fbr (Tty backup)

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc10646	BIAS (4)								
647	COMP							FeNe Clear	60s
648	HD177724	190049	13 43	202345		3 31W			187s
649	HD177724	190049	13 43	202803		3 33W			150s
650	COMP							FeNe Clear	60s
651	COMP							FeNe Clear	60s
652	NOVA Cyg 92	20 27 43	52 17 39	212446		3 13W			598
	~~NOVA~~ COMPS NOT POSSIBLE!							FeNe Clear	60s
653	NOVA Cyg 92	20 27 43	52 17 39	214114					687
654	NOVA Cyg 92	20 27 43	52 17 39	215733		3 50 W			829
655	COMP							FeNe Clear	60s
656	NOVA Cyg 92	20 27 43	52 17 39	221745					1042
657	COMP							FeNe Clear	60s
658	BIAS (4)								
659	NOVA Cyg 92	20 27 43	52 17 39	224107		4 37 W			957
660	NOVA Cyg 92	"	"	230230		4 37 W		956	957

Spectr. Temp. ..... Dome Temp./Hum. 4.6°C/62.2% Transparency Conditions ..... CLEAR 350

Focus ..... 6.82 ..... (2021)

Spectr. Temp. ..... Dome Temp./Hum. .....

480 0 50 1024 41 ccdfmt

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 α=6020	250 μ	λ=6563Å			ENCODERS WAY OFF	
....										∴ LATE START	
25K	5"(?)	V 2.99	AOV							TERRIBLE SEEING	
26K	"	"	"							NO TRACKING (GUIDING).	
										LONG WAIT TO EXPOSURE	
400		V ~9.5							NOVA PAM.	PROB WITH RACK. WILL	
										NOT GO TO 31750 POS'N	
550									NOVA PAM.		
550									NOVA PAM.		
560									NOVA PAM		
										RACK WORKING OK NOW.	
580									NOVA PAM		
~~98777~~									NOVA PAM		

#2

Date Oct 27/28 92 Observers FDR/Tty (backup)

Emulsion Batches: .....

.....

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
661	Comp								
662	NovaCyg92	20 27 43	52 17 39	23 19 21					101s
663	Comp							FDR Clear	60s
664	NovaCyg92			23 41 40					94s
665	Comp							FDR Clear	60s
666	BIAS (4)								
667 670	FLAT x4							ND4 n=1/2	7s
671	Comp							FDR Clear	60s
672	HD12929	02 01 30	22 59	00 15 31					38s
673	"	"	"	00 16 37					54s
		PACK UNABLE TO GET TO COMP. POSITION							

Spectr. Temp. ..... Dome Temp./Hum. 3.8°C / 64% (2241) Transparency Conditions ... Ptly. Cloudy .....

Focus ..... 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

352

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 G=6020	250 μ	λ=6563Å				
550	5"							7	NOVA PAM		
550											
20K		2.00	K2 III						STD. VEL.		
22K											
										All to Rosenhead WORM	

89#1

Date 1992 Oct 28/29 Observers [illegible]

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CE05257 5258	HARTMAN FOCUS	Test	IN BOARD/OUT BOARD		≈1805	≈03	≈+30°	ThAr	10/10
5259	BIAS(4)				20 02				
5260	Comp				20 2840			ThAr	4s
5261	HD198084	20 42 54	+57 13 00	20 32 46	20 59 16	02 27W			1591
5262	Comp							ThAr	4s
5263	Comp							"	"
5264	HD202109	21 08 42	+29 49	21 08 55		0223W			800
5265	Comp							ThAr	4s
5266	Comp	21 26 18	-06 01	~~21 28 47~~				"	4s
5267	HD204867	21 26 18	-06 01	21 28 17					1200
5268	Comp							ThAr	4s
5269	Comp							"	"
5270	HD8990	01 22 36	88 46	22 02 27		0215E			547
5271	Comp							ThAr	4s
5272	Comp							ThAr	4s
5273	HD34029	05 09 18	45 54	22 21 35		0439E			1075

Spectr. Temp. ..... Dome Temp./Hum. 7.7°C 66% H Transparency Conditions ... PART - incr cloudy .....
Then Clearing again 354

Focus ... +2.46 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... Echelle CLAMBDA 90C GAIN CCDT => -100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	✱Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
J dome = +7.6°C				echelle CCD	1643 W = 60u H = 400u		4481Å	3ci 4ci	✱ grating .4653	½ .2 pixels OUTBOARD w/s/ Red shifted	
								1ci		Noise pattern seen vertical stripes Dome T = +6.8°C	
								3ci	Tel calibrations	normalized to BS8585	
1100	<2"	V 4.5	F8 IV [F8 IV-V G0 IV]					4ci	MK std	3k Sum Avg of 6 cals @ 4481Å	
								5ci			
1600	2"	V 3.4	G8 II					~~6ci~~	MK Std	Tel Focus = 2241	
1343	3"	V 2.91	G0 I0					6ci	S+D. Vel.		
								5ci			
2500	2"	V 2	F								
3040		V 0.08	G6 III + G2 III					4ci	KK pgm		

pg 02

Date 1992 Oct 28/29 Observers [illegible] / Tn / Flr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Ex
ce05274	HD 34029	05 09 18	+45 54	22 24 15					163s
5275	Comp							ThAr	4s
5276	Comp							"	"
	~~H2H20~~	~~03 19 24~~	~~08 41~~	22 43 47		NO COUNTS - CLOUD			
5277	Flat								
5278	Flat							Tung	~~20s~~
5279	Flat	Slit length = 600μ.		10K ADU MAX		0 0	+20°	~~[illegible]~~	"
5280	Flat								"
5281	Flat				23 EST				"
5282	Bias (4)		Dome T = +6.0°C H = 75%						

5500

5500

4ci